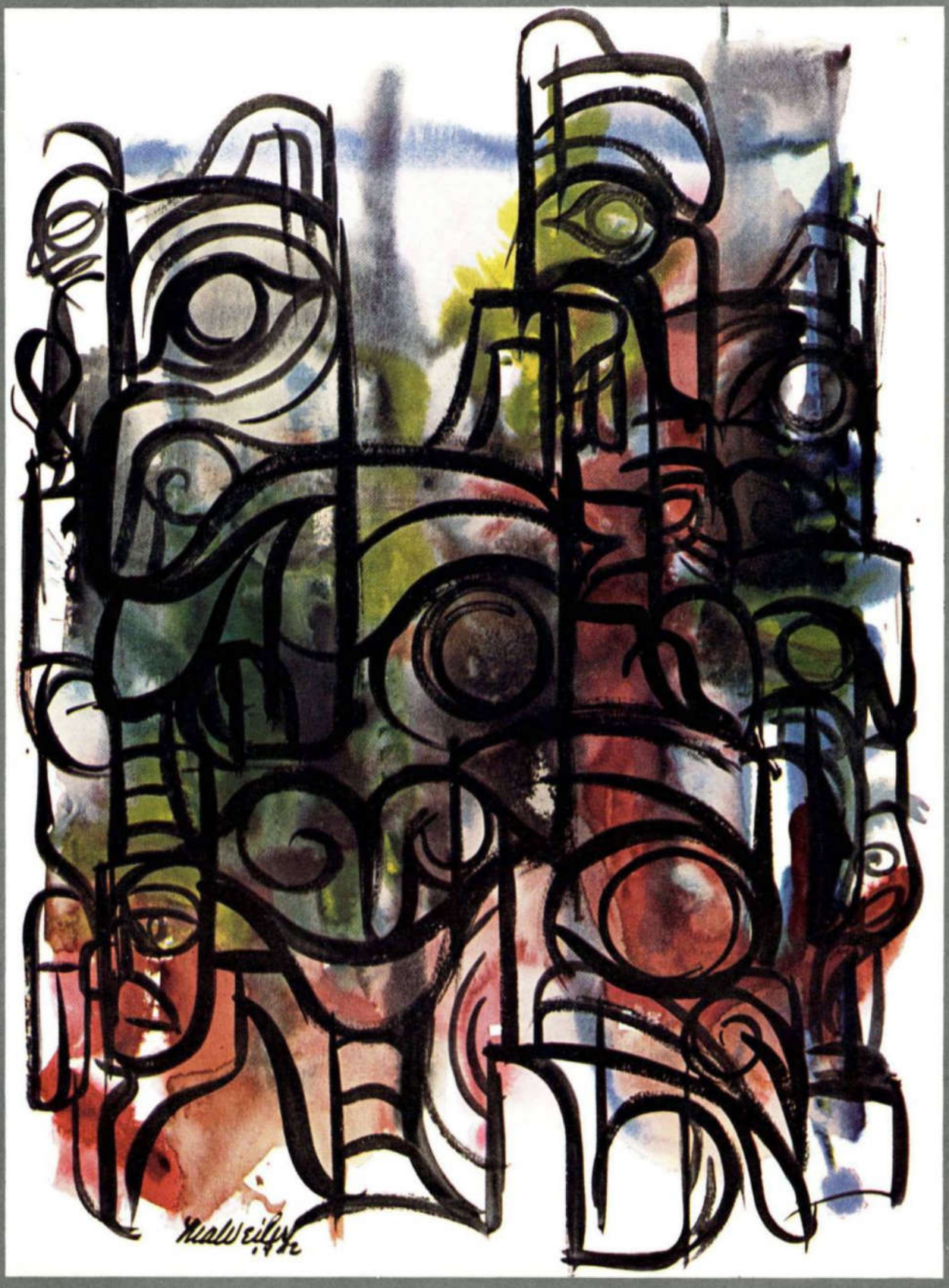
The Beaver

WINTER 1964



Eskimo trapper with Arctic Fox skins.

THIS IS THE ARCTIC– Canada's newest frontier served now, as in the past, by the men of the Hudson's Bay Company.

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INCORPORATED 2ND MAY 1670

The Beaver

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COVER *Grizzly bear of Tanu, a Haida totem on the Queen Charlotte Islands. Gouache painting by Mary Weiler.*

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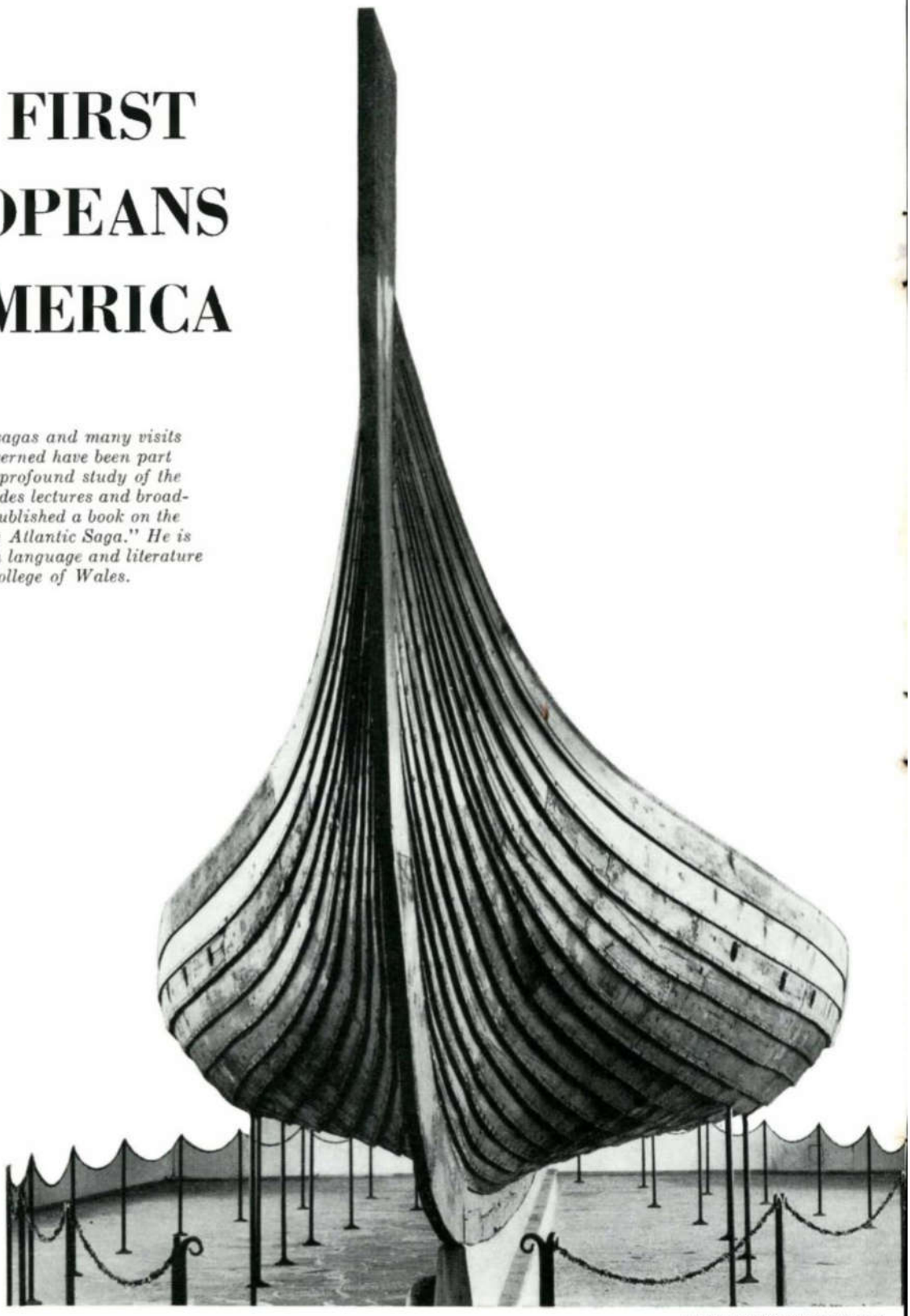
THE FIRST EUROPEANS IN AMERICA

by Gwyn Jones

Translation of the sagas and many visits to the countries concerned have been part of Professor Jones profound study of the Norse voyages. Besides lectures and broadcasts, he this year published a book on the subject, "The Norse Atlantic Saga." He is professor of English language and literature at the University College of Wales.



Ninth century Viking ship, the Norwegian Gokstad ship, so seaworthy that a copy was made that crossed the Atlantic in 1893.

OLDSAKSAMLING UNIVERSITY, OSLO

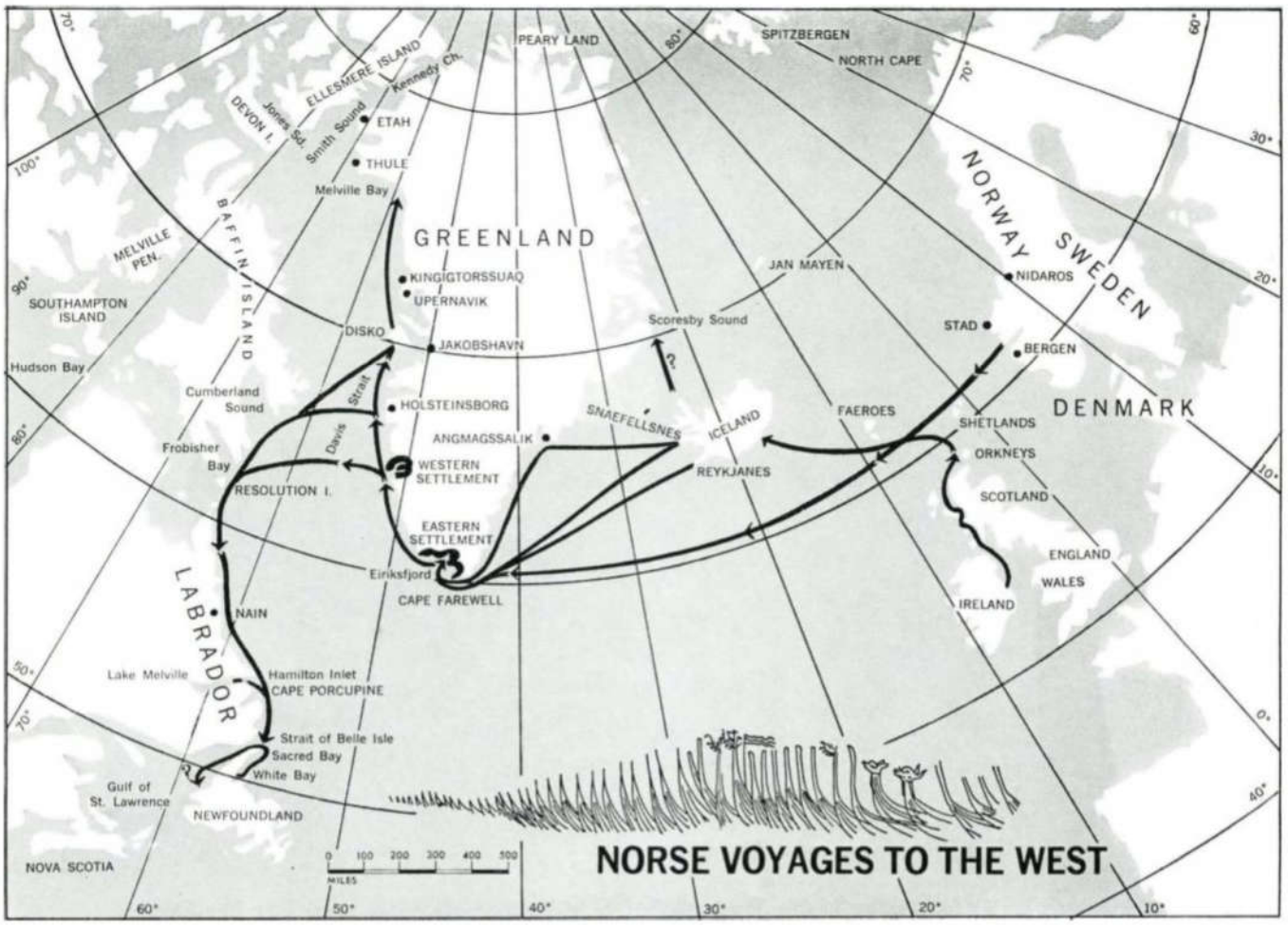
Eiriksfjord, Greenland. BENT FREDSKILD, NATIONAL MUSEUM, COPENHAGEN

THE RECONNAISSANCE

The first European to sight the coast of North America, live to tell the tale, and have his story recorded for posterity, was a young Icelander named Bjarni Herjolfsson. But there were brave men before Agamemnon, and storm-driven mariners before Bjarni; and maybe in trireme or dromond, curach or knorr, some unremembered crew made an unrecorded voyage to New England or Newfoundland or the outer verges of Hudson Bay fifty, a hundred, or even a thousand years before Bjarni found America while looking for Greenland in the summer of 985 or 986. Since at least 2500 B.C. men had been sailing the western waterways of Europe. The megalith builders, Phoenicians and Greeks, Celts, Carthaginians and Romans, and the religious of Ireland and Brittany, Cornwall, Wales and Strathclyde, were all busy sailors for whom great claims have rightly been made. But if any of them made an Atlantic crossing posterity knows nothing of it. The Irish are the likeliest candidates, but all the patriotism and ingenuity of the world have not reduced to credibility the whirling fantasies of Whitemen's Land or Ireland the Great, six days out in the ocean from Hibernia of the saints and princes; while as for the Welsh (a Welshman myself) I willingly leave Prince Madoc and the Welsh Indians, along with King Arthur's visitation of Greenland in A.D. 530 (when its inhabitants were 23 feet tall), to the misty dubiety from which they should never have emerged.

So our story opens with Bjarni Herjolfsson towards the end of the tenth century. Opens, that is, with the Norsemen. Starting from their continental homelands the Norwegians and Danes were by the end of the eighth century exploiting the possibilities of profit in the lands that lay west of them. In the 790s they were plundering in England and Wales, Scotland and Ireland. By 820 (to confine ourselves to their movement west) the Norwegians were occupying the Faeroes. In the 870s they reached Iceland and had settled the habitable parts of that country by 930. By 930 too they had sighted the east coast of Greenland, somewhere near Angmagssalik; and in 982 Eirik the Red went looking for habitable land there. He was of Norwegian stock, from Jaeren, but he and his father had been forced to leave Norway because of some killings. So they settled in the north of Iceland, at Drangar, a poorish, demanding farm, lying south of Hornbjarg, the North Cape. Eirik was always an awkward and ambitious neighbour, and after some further killings he was banished from Iceland for three years in 982. Once more he left his country for his country's good, sailed west on the 65th parallel, and having reached the inhospitable east Greenland coast headed south in search of prospects more genial. But it was only after he had cleared Cape Farewell and headed in a northerly direction up the western coast that he discovered what he was looking for. Between Herjolfsnes (Ikigait) and Eiriksfjord (Tunugdliarfik) he found himself traversing a noble archipelago with deep, life-teeming fiords to starboard, and inside these fiords when he entered them he saw long stretches of grass enamelling the rocky hillsides. For three years he explored the fiords and coastline of the southwest without nature's let or human hindrance, and when he returned to Iceland in 985 he called the country Greenland or the Green Land, believing that an attractive name and his private persuasion would be enough to lure land-hungry men to colonize it.

What happened now was of first importance for the Norse entry into the American continent. All the voyages of discovery and colonization to America of which the sagas have preserved any record were mounted from the Greenland settlements, and if there was any Norse



penetration of the Canadian Arctic the starting point for this too must have been Greenland.

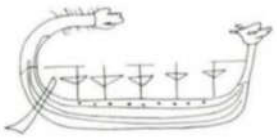
Before the year 1000, Norse settlers were strongly established in two places in Greenland. There was the so-called Eastern Settlement (Eystribyggd) in what is now the Julianehaab region, and the Western Settlement, around the modern Godthaab. The Eastern Settlement was the larger, numbering eventually 190 farms, 12 parish churches, a cathedral at Gardar (the modern Igaliko), an Augustine monastery and Benedictine nunnery. In the Western Settlement would be 90 farms and 4 churches; and the 20 farms, with no church, round Ivigtut are sometimes described as a Middle Settlement, sometimes as a northern offshoot of the Eastern. The population of the Greenland settlements, a determining factor for their future expansion north or west, is hard to calculate, but is unlikely to have exceeded 3,000.

The question is sometimes asked: Why did the Norsemen settle in Greenland? Why did they ever go to such a place? But there is no puzzle. They went because they wanted land, and more especially grassland. They were animal-husbandmen, stock-farmers, in need of new pastures, such as were to be found in fair abundance inside the fiords of the southwest. No one today can sail up Eiriksfjord or past Julianehaab to the church at Hvalsey (Kakortoq) without understanding how strong a pull their often grassy slopes and verdant hillsides would exert upon men baffled in their quest for land back in Iceland. Eirik's own complex of farms at Brattahlid (Qagssiarssuk) is especially attractive, with its long rich pastures lining the water's edge and covering the low hills which run back mile upon mile, spattered with dwarf birch, willow, and juniper, dark streams and bright lakes, right over to the icy splendour of Sermilik-Isafjord. "It is reported," says the wise and informed author of the 13th century *King's Mirror*, "that the pasturage is good, and that there are large and fine farms in Greenland." And again, "The earth yields good and fragrant grass. . . . The farmers raise cattle and sheep in large numbers, and make butter and cheese in great quantities. The people subsist chiefly on these foods, and on beef; but they also eat the flesh of various kinds of

game, such as reindeer, whales, seals, and bears. That is what people live on in that country." And, of course, the fish that fill the fiords. After the bitter famine of 976 such abundance would prove irresistible to many Icelanders.

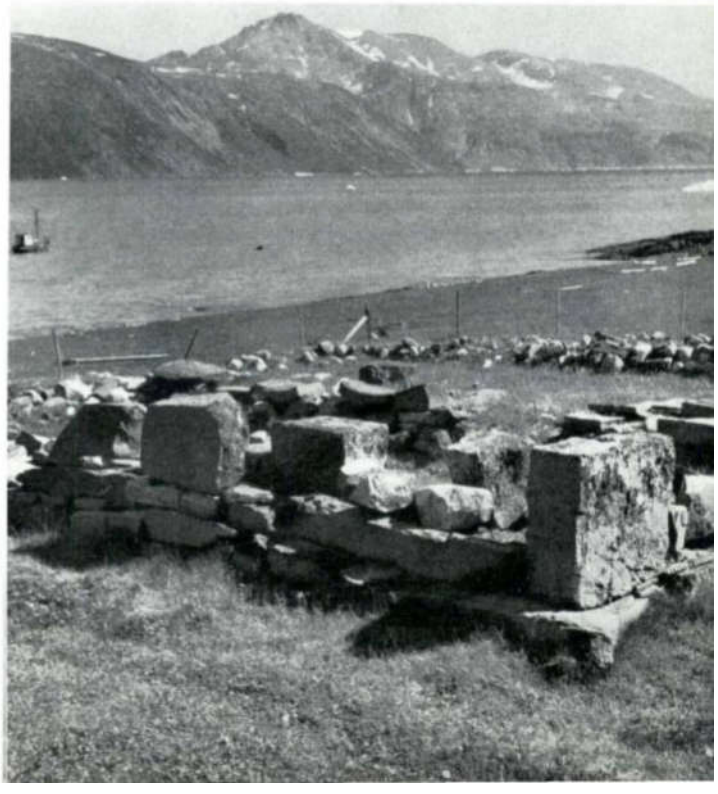
The Norse Greenlanders did not long confine themselves to the grassy oases of the southwest. The fast-gathering wave of Norse seaborne adventure was now reaching its height, and in so far as its movement was to the west it could not in the nature of things slacken or die before it lapped the farthest verges of the Atlantic Ocean. From the Greenland settlements men could in theory progress in every direction but it did not take long for them to learn of the barrier presented eastwards by the Inland Ice. "Men," says the *King's Mirror* "have often tried to go up into the country and climb the highest mountains in various places to look about and learn whether any land could be found that was ice-free and inhabitable. But nowhere have they found such a place, except what is now occupied, which is a little strip along the water's edge." So first they would press north to determine the limits of the "little strip", and then they would be looking west. From the high mountains near the coast they could discern if not land at least the cloud formations they had learnt to associate with land. Out west, they quickly knew, lay *something*.

But first, the route north. That the Norsemen pressed far beyond the Western Settlement is amply attested. The evidence is mainly but not entirely documentary. The best hunting grounds in Greenland lay north of the modern Holsteinsborg as far as the Nugssuaq peninsula beyond Disko, and these the Greenlanders quickly discovered and steadfastly exploited, for fishing, hunting, and the collection of driftwood. They called them the *Nordrsetr* or *-seta*, the Northern Encampment(s) or Hunting Ground(s). The discovery in 1824 by the Eskimo Pelimut of a small stone inscribed with runes in one of three cairns on the island Kingigtorssuaq, just north of Upernavik, shows that Norsemen, i.e. Europeans of Scandinavian descent, were close to latitude 73° N. in the year 1333. In 1267 an expedition from the Eastern Settlement had reached Melville Bay, almost at the 76th parallel. "The Greenlanders," it is recorded in the *Graenlandsannall* of Bjorn Jonsson, which we believe to be based on old and trustworthy sources, "must constantly sail north to the uninhabited areas at the northern land's end or peninsula, both for wood and for procuring game. The regions there are called Greipar and Kroksfjardarheidi. It is a long and arduous course, as the saga of Skald-Helgi clearly shows. The following lines are composed about these voyages: 'Heroes went to Greipar, which is the end of the settlement of Greenland'." And at Greipar (probably north of Holsteinsborg), Kroksfjardarheidi (near Disko), Upernavik and Melville Bay, we may for the moment leave them, while we shift our gaze westward across Davis Strait and Baffin Bay to the islands and peninsulas of arctic Canada.



THE NORSEMEN IN THE CANADIAN ARCTIC

The theory that the Norsemen, their blood and culture, are part of the medieval history of arctic Canada is a two-pronged one. Both prongs depend on what we know, or imagine, to be the facts of the rise and fall of the Norse settlements in Greenland, especially in relationship to the non-European peoples they encountered. Ari Thorgilsson, the most respected and reliable of twelfth-century Icelandic historians, tells us that when the Norsemen entered Greenland towards the end of the tenth century they found there traces of an earlier, and as they judged, non-European occupation. "Both east and west in the country [i.e., presumably at both the Eastern and Western Settlements] they found the habitations of men, fragments of boats [? *keiplabrot*], and stone artifacts, from which it may be seen that the same kind of people had passed that way as those that inhabited Vinland, whom the Greenlanders call Skraelings" (*Islendingabok*, *c.* 1125). But the Skraelings themselves they did not find. "Skraeling" was the name applied by the Norsemen to everyone of non-European race encountered west of



Brattahlid, home of Eirik the Red in the Greenland Eastern Settlement, on Eiriksfjord, showing the ruins of the third church dating from just after 1200.
NATIONAL MUSEUM, COPENHAGEN

Iceland. It stood for both Indian and Eskimo, whatever their kind and culture. The Skraelings whose traces were found in the southwest are thought to be Eskimos of the Dorset Culture, who had long since disappeared from the area. Documentary evidence attests that the Norse Greenlanders were again in contact with Skraelings about the middle of the 13th century, somewhere north of Disko, and these we call Eskimos of the Thule Culture. By the 1340s we hear on the authority of Ivar Bardarson that "the Skraelings hold the entire Western Settlement," and while the reasons for the Settlement's disappearance or extermination have been much debated the fact itself is incontestable. In its turn the Eastern Settlement came to an end *c.* 1500, but here too we have neither a clear nor a detailed picture of what happened.

One view is that the Norse settlements in Greenland remained white, Norse, European and Christian to the end, and that their end came about for a complex of reasons, among which the encroaching Eskimos, climatic change, and the difficulty of maintaining communication with Europe were the most important. First the Western and then the Eastern Settlement ceased to be viable and failed to survive. Another view is that the Norse Greenlanders became so blended with the native population of Skraelings that they ceased to be white, Norse, European and Christian, and their disappearance from the Western Settlement in about 1340 and from the Eastern Settlement some 160 years later is because they migrated westwards to the adjacent parts of Canada. Both views have lent themselves to variation and refinement and to prolonged discussion. The importance of the second in the context of the present article is that it stakes a claim for a Norse or rather Eskimo-Norse entry into Canada by the mid-14th century, and offers a pre-emptive explanation for all such highly debatable phenomena as rectangular houses, bear-traps, cairns, eider-duck walls, boat-houses, iron nails and knives, correspondences of vocabulary, tall or blond Eskimos, whenever and wherever found in the Canadian Arctic. But even if we accept it, and buttress it with the often-quoted but in its religious assertions demonstrably inaccurate entry for 1342 in the Icelandic Annals of Bishop Gisli Oddsson (written in Latin *c.* 1637), that "The inhabitants of Greenland of their own will abandoned the true faith and the Christian religion, having already forsaken all good ways and true virtues, and went over to the people of America (*ad Americae populos se converterunt*)"—even if we do this, and beg the entire question of what the Bishop meant by "the people of America" (whether for example, he meant like Ari before him *skraelingas*), we are left at best with a curiously inconclusive parenthesis in the history of the

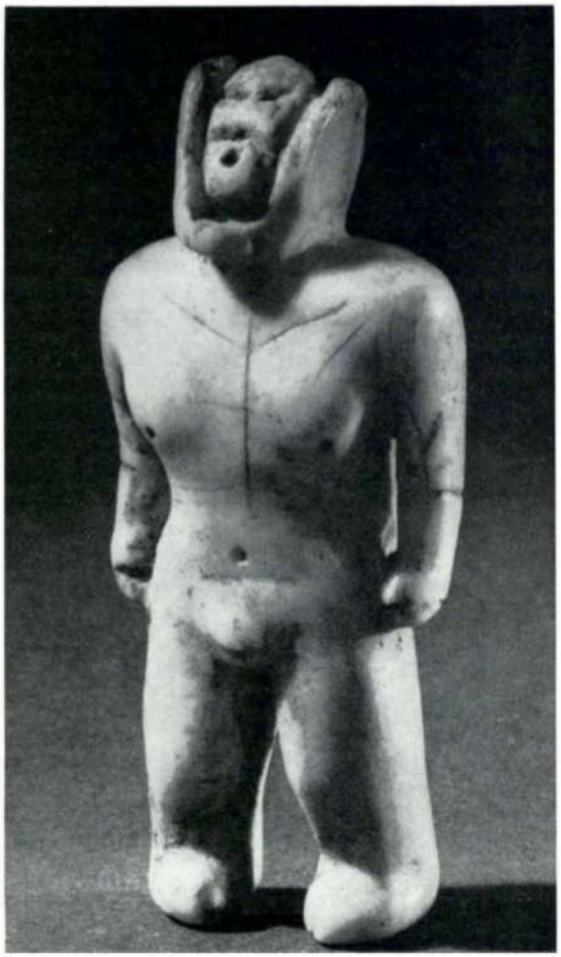
Crucifix carved in driftwood, from Sandnes Church in the Western Settlement in Greenland, c. 1300. It is 8½ inches high.
NATIONAL MUSEUM, COPENHAGEN

Right: Dorset Eskimo. An Eskimo carving in walrus tooth, a little less than 2½ inches high, c. 1000, from the Thule district.
JORGEN MELDGAARD

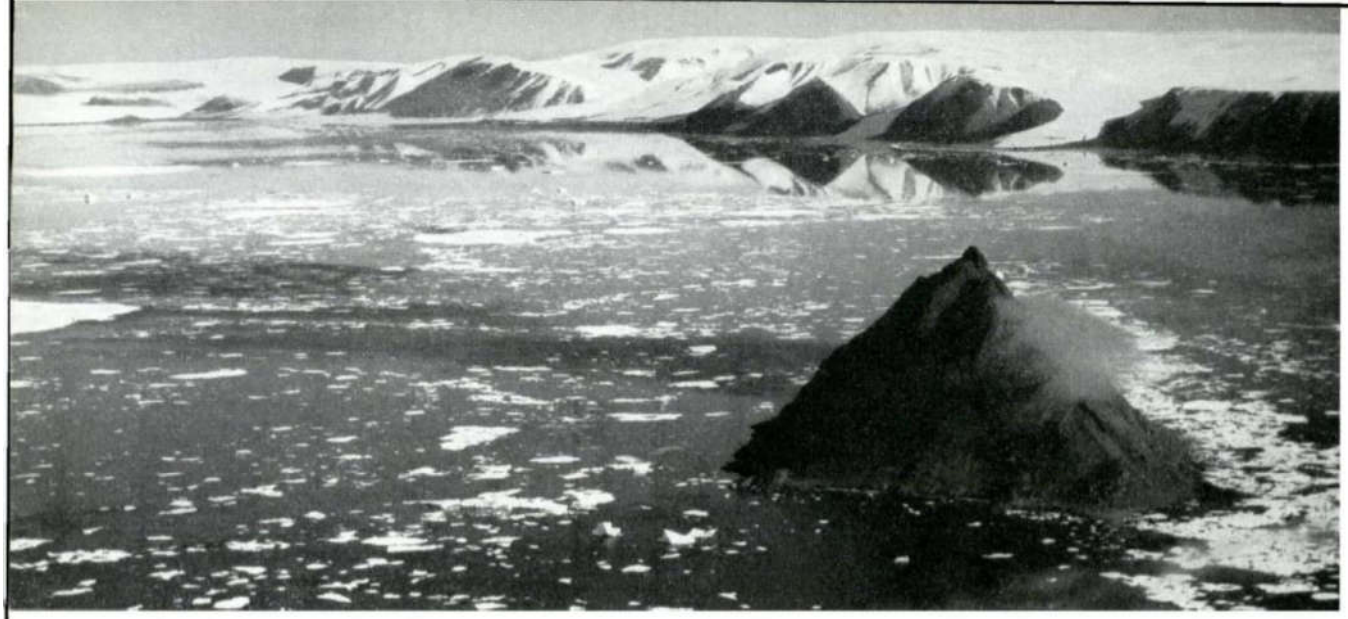
Canadian Arctic, and an unnatural dying fall to the history of Norse expansion west.

Which brings us to the second prong of the theory concerning the Norse entry into Canada, as it is advanced by Jon Duason in his *Landkonnun og Landnam Islendinga i Vesturheimi* (Reykjavik, 1941-47, dealing with the pre-Columbian explorations and settlements of the Icelanders in the western hemisphere), and by Tryggvi Oleson in the first volume of the Canadian Centenary Series, *Early Voyages and Northern Approaches, 1000-1632* (Toronto, 1963).

Their argument, briefly (and I draw it from Professor Oleson's book as the one immediately available to English-language readers), is that as soon as the Icelanders were settled in the southwestern districts of Greenland they began to make voyages farther afield: to the east coast, which need not concern us; northwards as far as Inglefield Land and Kennedy Channel; and west to Ellesmere, Devon and Baffin Islands; also by way of Hudson Strait to the region round Melville Peninsula and Southampton Island, and possibly still farther into Hudson Bay. "All these regions, although more particularly north Greenland, were known as Nordrseta. Labrador may have been included as voyages were frequently made there for timber" (p. 36). That the Norsemen made voyages to Baffin Island and Labrador we know from reliable Icelandic sources, both sagas and annals. That they voyaged to the other named Canadian territories is possible but hardly to be proved from the documents. A cautious reading of the literary and historical material would not place the "northern land's end" of Greenland at Etah, but considerably farther south; and particularly when one considers the nomenclature and compass-bearings of the *Eastern* and *Western* Settlements it is hard to believe that Hudson Bay could be part of any *northern* camping grounds. For Labrador the objection is stronger still. Indeed Labrador (Markland, i.e., Wood Land) and Baffin Island (Helluland, Flatstone Land) seem specifically excluded both by name and definition from that area. It would, of course, be folly to argue that no Norse Greenlander (Oleson's term Icelander is unacceptable for the European inhabitants of Greenland after the immediate period of settlement: it is like calling Icelanders of the same period Norwegians) ever set foot on Devon Island or nosed his way into Foxe Basin. But unless the documents are interpreted with determined ingenuity they yield no evidence of it. Unlike the journeys north from the settlements to Holsteinsborg and Disko, to Upernavik and (once) to Melville Bay, and unlike the voyages west and thereafter south to Baffin Island, Labrador, Newfoundland, and possibly New England, the Norse entries into the waters and islands of northeastern Canada were too unrewarding, ill-fated, or generally unsustained to force themselves into the literary record. That courage, curiosity, greed, ambition, accident and plain misfortune carried Greenlanders over the water to Canada may be assumed; that the two cairns discovered in Jones Sound in latitude 76° 35′ N., and a further two on Washington Irving Island in latitude 79°, are proof of this, is a fair deduction; but that the explorers were few and their journeyings inconclusive in terms of settlement or trade seems all too clear. Norse wanderings north or west of Melville Bay, gallant and arduous though they must have been, provide meagre illumination today for the medieval history and geography of the North.



It is a feature of the Duason-Oleson thesis that it lays little or no stress on climatic conditions during the period 1000-1500. Yet this would seem central to the whole subject of the Norse Atlantic voyages and Norse acquaintance with the North American continent. For unless we accept some theory of climatic change, postulating a comparatively warm period around the year 1000,



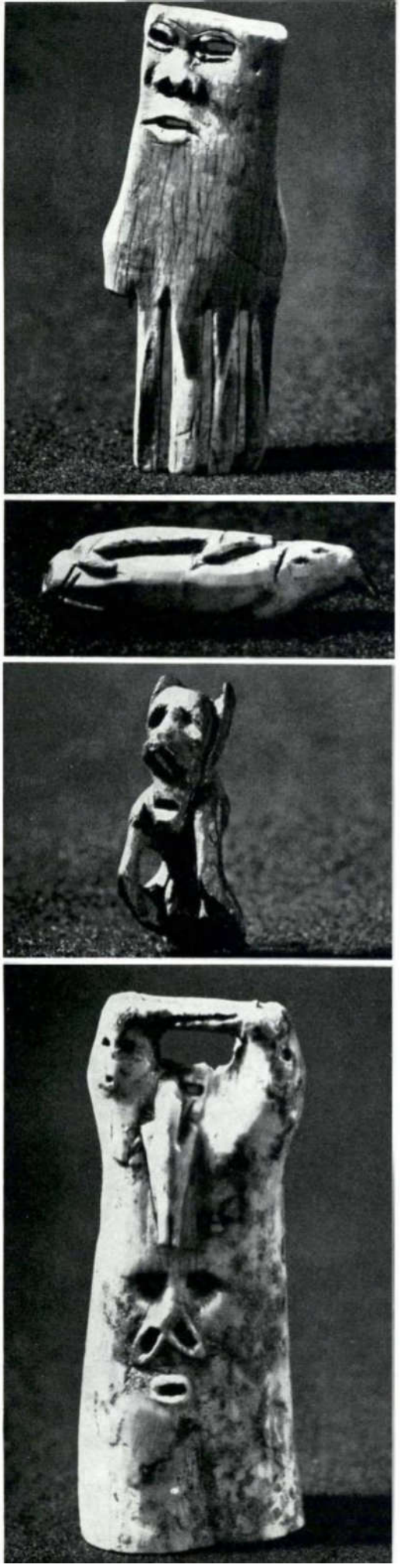
Jones Sound and the south shore of Ellesmere Island. Farther west on this shore were found cairns believed to be Norse in origin.

DEPARTMENT OF TRANSPORT

and a progressive deterioration after 1200, much of what all scholars regard as credible and authenticated in the vital Icelandic documents is not to be believed. Thus in modern conditions of ice (by no means the worst on record) Eirik the Red's voyages of exploration and settlement to Greenland, and those of Leif and Karlsefni to the Canadian coast, could just not have taken place at the time of year and in the directions in which we are told they did take place; while the evidence for worsening conditions of cold and drift ice after 1200 is both plentiful and picturesque in the mid-13th century *King's Mirror*, in Ivar Bardarson's celebrated mid-14th century *Description of Greenland*, and in Abbot Arngrim Brandsson's description of Iceland and her surrounding waters of roughly the same date. Indeed to speak of a 'theory' of climatic change seems now out-of-date; the deterioration of the climate after 1200 would appear to be a fact; and the bearing of this on the Norsemen's exploitation of the Canadian Arctic, conservative as they were in their food, habits and clothing, needs no stressing, allied as it must be with the known circumstance of the loss or degeneration of their sea-going vessels.

Exploitation of the Arctic, that is, as Norsemen of the Viking Age. For it is the contention of Duason and Oleson that they made a striking contribution of yet another kind to arctic and sub-arctic history. In a sentence, that by intermixture with people of the Dorset Culture, with whom they found themselves in contact in the 11th and 12th centuries in Canada and Greenland, they were the direct ancestors of the Thule Eskimos. The idea is a startling one and contradictory of the generally held view of the Thule Eskimos as yet another Eskimo people who made their way from Alaska across the far north of Canada, and with Ellesmere Island as their final stepping stone crossed into the Thule region of Greenland shortly before the year 1200. It was the descendants of these Eskimos who, as the Inugsuk folk, proceeded in the centuries that followed to occupy the habitable portions of Greenland, including those held by the Norsemen. The Dorset Eskimos were a much older people, whose origins go back to the first millennium B.C. and who still existed at a date well after the Norse settlement of Greenland and the Vinland voyages of *c.* 1000. Their remains have been found in Newfoundland and Labrador and in many parts of the Canadian archipelago, including Melville Peninsula, in the Thule and Disko districts of Greenland, including the all-important dating site at Sermermiut near Jakobshavn, and in Peary Land and northeastern Greenland too. In a still remoter past they had been preceded by the Sarqaq Culture people. A fuller picture of Eskimo habitation in Greenland is possible, from Independence I to Inugsuk (see Jens Rosing's convenient summary in *Bogen om Gronland*, Copenhagen, 1962, pp. 29-45), but is not here relevant, whereas a third name most decidedly is. Integral to the Duason-Oleson theory is the identity of the Tunit (Tunnit, Tornit). These have been identified as pre-Thule Eskimos, and more specifically as people of the Dorset Culture, as the creations of Eskimo folklore, and (Duason-Oleson) as "Icelanders [read Norse Greenlanders] who for one reason or another found it more congenial or advisable to leave the farming districts and to adopt what we know as an Eskimo way of life, bringing to it, however, many of the features of the material culture of Scandinavia in the Middle Ages."

Such information as we possess about the Tunit is often confused, not rarely contradictory, and always capable of different glosses and explanations. It offers at present only a shaky foundation for any theory of race and origin, and if a generally acceptable explanation emerges in the



future it must come not from written sources but from archaeology and its ancillary sciences. At the moment the likeliest explanation of the Tunit is that they were the Dorset Eskimo, though the facts concerning them have become mingled with folktale and, at a late stage, with reminiscence of the Norse Greenlanders.

It is these same sciences, archaeology, anthropology, ethnology, which must effectually pronounce sentence on the theory that the fair gigantic Greenlanders and the dark dwarfish Skraeling (for the Duason-Oleson theory is a highly dramatic one, and some of its elements not unlike folktale itself) achieved so harmonious a miscegenation as to produce the Thule Eskimo, who therefore are to be considered not as a new wave of Eskimos moving across Canada from Alaska into Greenland but as Norse-Dorset hybrids moving east to west. Meantime a student of the literature ventures three observations. First, there is nothing in Scandinavian written or runic sources which lends unambiguous support to the Duason-Oleson theory, and much which contradicts it. Every reference to the apostasy of the Greenlanders and their 'going-over' to another way of life is capable of a different explanation, and one more in accord with what we know of late Greenlandic history. Second, from everything we know of the Scandinavians in Iceland and Greenland they were uncompromisingly tenacious of their family genealogies and their status as Europeans. Third, it would require the most compelling and incontrovertible evidence to make one believe that within a period of less than two centuries a fair proportion of Norse Greenlanders could depart the settlements, produce a hybrid race, and that this race could subsequently inherit the colonies of the fellow-countrymen of these same Norse Greenlanders, with apparently no one on either side aware of their blood-tie and family relationship. But as reference to the literature of the subject shows, the evidence, whether archaeological, anthropological or linguistic, far from being incontrovertible, has been and still is the subject of keen debate and sharp division. One wonders too where the Norse women came into all this. In the present state of knowledge the mildest verdict possible upon the Duason-Oleson thesis is 'Not Proven'.

Ivory carvings of Dorset Culture Eskimos from the Canadian Eastern Arctic. The comb, at top, 2½ inches high, is from Devon Island. The walrus with pup measures 1¼", the mythological creature, one inch. The piece at the bottom (¼" high) carved with faces and walrus heads, is a needle case.

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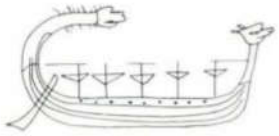


THE VINLAND VOYAGES

From these half-glimpsed possibilities of Norse activity north of latitude 64° N. we turn to the verities of Vinland. That men from Greenland and from Iceland by way of Greenland made voyages that brought them to southern Baffin Island, to Labrador and Newfoundland, and maybe farther south is a plain matter of record. These voyages are well documented and accord with everything we know of Norse maritime and colonial practice during the great age of Viking expansion west. The two main documents are Icelandic, *The Greenlanders' Saga* (*Groenlendinga Saga*) and *Eirik the Red's Saga* (*Eiriks Saga Rauda*), and we begin by determining their authority.

The Greenlanders' Saga (*GS*) was probably first written down about 1200, and *Eirik the Red's Saga* (*ESR*) some seventy years later. *ESR* exists in two versions, which tell the same story with the same order of events, but with frequent and sometimes considerable differences of wording. Both *GS* and *ESR* contain varying amounts of matter which can be described as fictional, whether its origins lie in legend, folklore, ecclesiastical propaganda, pseudo-learning and the like, or in the saga writer's desire to give shape to his material; but in their essentials, even so, they are repositories of genuine tradition and reputable history. In the light of everything learnt during the last thirty-five years about the art and practice of saga-writing, our ability to distinguish history, tradition legend, folktale, one from the other has become much increased, and our awareness of the processes of deviation, accretion, sources and influences, reinterpretation, misunderstanding and change of emphasis much sharpened. In particular we are better informed as to the historicity of individual sagas. In the case of *GS* and *ESR* there are features and circumstances still unclear; but it requires a violent eccentricity to deny that voyages to Vinland took place and that we have gone a long way towards identifying many of the places reached.

Which brings us again to Bjarni Herjolfsson and the late tenth century. For according to *GS* it was this young man who, seeking Greenland in 985-86, was first swept off course, then beset by wind and fog, till after many days' uncertainty his crew beheld the hitherto unknown eastern coast of Canada. *ESR*, however, says nothing of Bjarni, but in a section notable for confusion, irrelevance, and clumsiness, ascribes the honour of the discovery to Leif Eiriksson, the eldest son of Eirik the Red, founder of the Greenland settlements. To Leif *GS* assigns the credit of the first landings in the New World and the first sojourn in Vinland.

In all *GS* makes mention of six voyages to the North American coast, made by 1, Bjarni Herjolfsson; 2, Leif Eiriksson; 3, Thorvald Eiriksson; 4, Thorstein Eiriksson; 5, Thorfinn Karlsefni; 6, Freydis Eiriksdottir. *ESR* makes mention of three of these only: 1, Leif Eiriksson; 2, Thorstein Eiriksson; 3, Thorfinn Karlsefni. According to both sources Thorstein's voyage was a failure: he never even sighted America. According to both, the one real attempt at establishing a colony in America was made by Thorfinn Karlsefni. Thorvald Eiriksson's voyage (*GS* 3) has been incorporated in part, and not without substantial change, in *ESR's* account of Karlsefni's expedition.

On examination the following pattern emerges. *GS* is much less concerned with Iceland and Icelanders than is *ESR*. *GS* is mainly interested in the family of Eirik the Red, *ESR* in the Icelander Karlsefni and his wife Gudrid. Nevertheless it is *GS* which records the voyage of Bjarni Herjolfsson, and since this may be held to detract from the achievement of Eirik's son Leif, we must accept it as a convincing concession to truth. Further, it is entirely natural that *GS* and *ESR* should sometimes handle separate material, like the murderous voyage to Vinland of Freydis, Eirik the Red's daughter, in the one, and the heroic death at sea of Bjarni Grimolfsson the Icelander in the other. Nor will any student of the sagas be surprised that they sometimes produce differing and yet reconcilable versions of the same event, like Thorstein's abortive voyage and his death by plague, or Thorvald's death by an arrow on a voyage somewhere north of the

The 1590 map of the North Atlantic region by Sigurdur Stefansson of Skalholt in Iceland. THE ROYAL LIBRARY, COPENHAGEN

Norse Greenlander, an Eskimo carving in wood, 3" high, of the 14th-15th century, from Upernavik district, Greenland.
JØRGEN MELDGAARD

main area of Vinland settlement. When in addition we remove from both sagas the more obvious encrustations of fantasy and misunderstanding, we are left at a wary estimate with the following facts:

1. Bjarni Herjolfsson made a sea-voyage from Iceland to Greenland in 985 or '86 and sighted the American-Canadian coastline.

2. Leif Eiriksson made a voyage from Greenland soon after and went ashore at various points of the newly discovered land.

3. Thorfinn Karlsefni attempted not many years later to establish a colony there, but had soon to abandon it.

4. Thorvald Eiriksson made a voyage to the new land, either with his own crew before Karlsefni, or in Karlsefni's company, and was killed there.

5. These voyages were over and done with by 1020 or earlier.

There are trustworthy and important references to Vinland in Adam of Bremen, *c.* 1075, in the Icelandic Annals for 1121, and in Ari's *Islendingabok*, *c.* 1125; an unsatisfactory one preserved in connection with the no longer extant Honen runic inscription found in Ringerike, Norway, and possibly of the period *c.* 1050; a number of casual ones in Icelandic histories and sagas of the 13th century; and what appear to be derivative mentions in some Icelandic geographical treatises of the 14th century. To conclude, Norse knowledge of a region of the North American (Canadian) coast, and recognition of it as the goal of Norse voyages of exploration is handsomely attested, and this being so, we turn to the narrower problem of geographical identification.

The place to start is where the sagas start, with Bjarni Herjolfsson. He had been in Norway for the winter of 985-86, and when he returned to Eyrar (the present Eyrarbakki) in the south of Iceland the following summer was much taken aback to find that his father had sold up and left for Greenland with Eirik the Red. However, he determined to follow him. *GS* recounts:

> They put out the moment they were ready, and sailed for three days before losing sight of land. Then their following wind died down, and north winds and fogs overtook them, so that they had no idea which way they were going. This continued over many days, but eventually they saw the sun and could then get their bearings [or determine the quarters of the heavens]. They now hoisted sail, and sailed that day before sighting land, and debated among themselves what land this could be. To his way of thinking, said Bjarni, it could not be Greenland. They asked him whether he proposed to sail to this land or not. "My intention", he replied, "is to sail close in to the land." Which they did, and could soon see that the land was not mountainous and was covered with forest, with low hills there, so they left the land to port of them and let their sheet turn towards the land.
>
> After this they sailed for two days before sighting another land. They asked whether Bjarni thought this in its turn was Greenland. In his opinion, he said, this was no more Greenland than the first place—"For there are very big glaciers reported to be in Greenland". They soon drew near to this land, and could see that it was flat country and covered with woods. Then their following wind died on them. The crew talked things over and said they thought it common sense to put ashore there; but this Bjarni would not allow. They reckoned they were in need of both wood and water. "You lack for neither," said Bjarni and got some hard words for this from his crew.
>
> He gave orders to hoist sail, which was done; they turned their prow from the land and sailed out to sea three days with a southwest wind, and then they saw the third land, and this land was high, mountainous, and glaciered. They asked whether Bjarni would put ashore there, but no, he said, he had no wish to. "For to me this land looks good for nothing." So without so much as lowering their sail they held on along the land, and came to see that it was an island.
>
> Once more they turned their prow from the land and held out to sea with the same following wind. Soon the wind freshened, so Bjarni ordered them to reef, and not crowd more sail than was safe for their ship and tackle. This time they sailed for four days, and then saw the fourth land. They asked Bjarni whether he thought this was Greenland or not. "This is very like what I am told about Greenland," replied Bjarni, "and here we will make for the land."

And Greenland it was. What then were the three other lands sighted and described? A growing consensus of

Cloud-drifted mountains and fiords on the east coast of Baffin Island. Farther south there are ranges of flat-topped mountains and rocky hills.

R. PHILLIPS

opinion would settle for Newfoundland or, better, south-eastern Labrador as the first, somewhere farther north in Labrador as the second, and Baffin Island as the third. When Leif Eiriksson sailed the same coasts in reverse order he gave to Baffin Island the name Helluland, "Flatstone Land"; Labrador he named Markland, "Wood Land"; and the place still further south where he built booths and a house he named Vinland, "Wineland", because his crew found grapes there. There was an island lying north of this third land, and "they sailed into the sound which lay between the island and the cape projecting north from the land itself. They made headway west round the cape." The other voyages recorded in *GS* followed Leif's course exactly, and all the voyagers arrived by the same route at the same place, Leifsbudir, "Leif's Booths".

ESR, we have noticed, has nothing to say of Bjarni, and nothing very illuminating to say of Leif, while its two versions present us with somewhat different sailing directions for Karlsefni. What follows is part of *ESR* 557 (the earlier version of *ESR*):

> They had a hundred and sixty men on board their ships. They then sailed away for the Western Settlement and for Bjarneyjar, Bear Isles. From Bjarneyjar they sailed with a north wind, were at sea two days, and then found land. They rowed ashore in boats and explored the country, finding many flat stones there, so big that a pair of men could easily clap sole to sole on them. There were many arctic foxes there. They gave the land a name, calling it Helluland, Flatstone Land. Then they sailed with a north wind for two days, when land lay ahead of them, with a great forest and many wild animals. Off the land to the south-east lay an island, where they found a bear, so called it Bjarney, Bear Island. But the land where the forest was they called Markland, Wood Land.
>
> Then when two days were past they sighted land, and sailed to the land. Where they arrived there was a cape. They beat along the coast and left the land to starboard; it was an open harbourless coast there, with long beaches and sands. They put ashore in boats, came across the keel from a ship, so called the place Kjalarnes, Keelness. Likewise they gave a name to the beaches, calling them Furdustrandir, Marvelstrands, it was such a long business sailing past them. Then the land became bay-indented, and towards these bays they headed their ships.

There follows an account of how Karlsefni put the two Scots Haki and Hekja ashore south of Furdustrandir to spy out the land and how they returned, the man with grapes in his hand and the woman with wild wheat.

> They took them on board ship and went their ways until the land was indented by a fjord. They laid the ships' course up into this fjord, off whose mouth there lay an island, and surrounding the island strong currents. This island they called Straumsey [Straumey]. There were so many birds there that a man could hardly set foot down between the eggs. They held on into the fjord, and called it Straumsfjord [Straumfjord], and here they carried their goods off the ships and made their preparations. They had brought all kinds of livestock with them.

Karlsefni seems to have followed what may be called the 'classic' route to Vinland, sailing from the Eastern Settlement up the coast of Greenland to somewhere

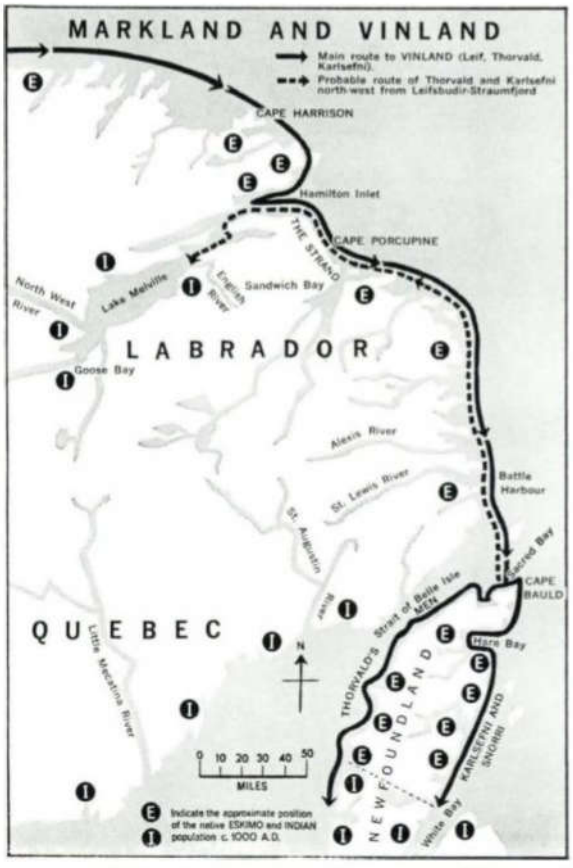
north of the Western Settlement, though whether to the modern Holsteinsborg or Disko we cannot say. From there he dropped across Davis Strait to the southern part of Baffin Island, kept sailing south to below the northern tree-line of Labrador, (below Nain), and then south again to a place called Straumfjord which either is, or has in large measure been confused in saga tradition with, Leifsbudir. Here he made his bid for a permanent settlement, but after three years was forced to withdraw by the native population. Meantime he had for a while sailed further south, to a wheat and vine-blest district whose main feature was a landlocked bay, again somewhat reminiscent of Leifsbudir. This he called Hop, after the Icelandic word for such a topographical feature, and this too he found untenable by reason of native hostility.

The situation and extent of Vinland in general, and the sites of Leifsbudir, Straumfjord and Hop in particular, are still the subject of debate, and will no doubt long remain so. Straumfjord, for example, has been sought and found at well over a dozen points on the Canadian and American coasts between Hudson Bay and Florida. The continent has been prodigal of weapons, runes, round towers, fireplaces, houses and mooring-holes, which have proved at once the jest and despair of sober scholarship. How then shall we most profitably proceed?

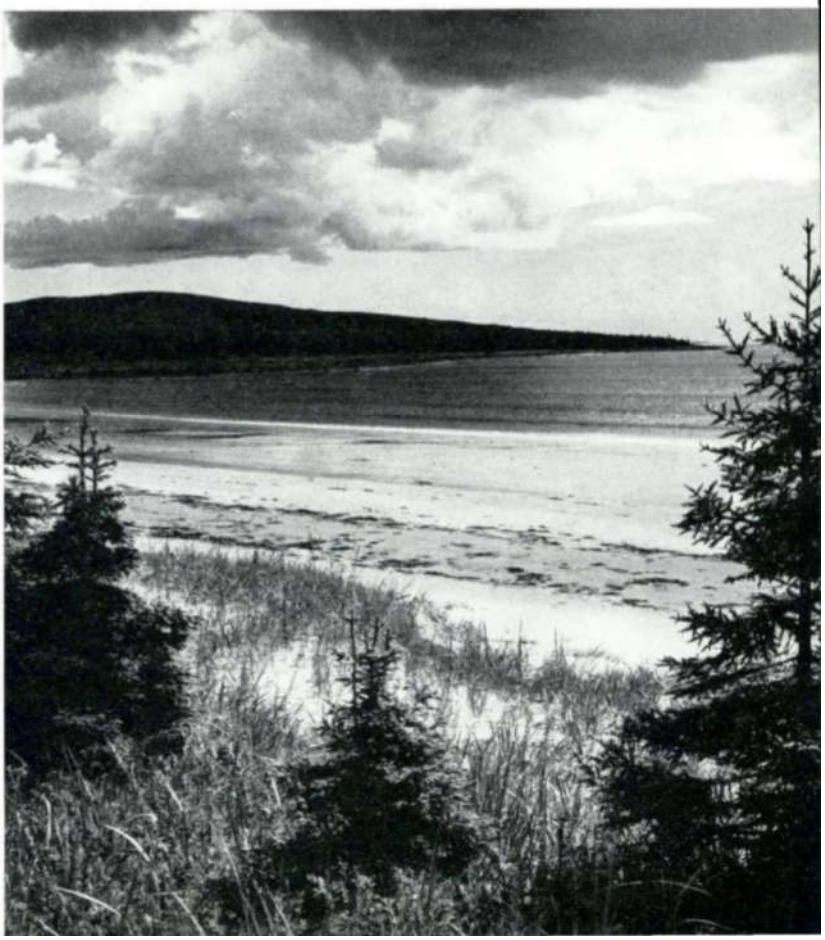
Cautiously, as ever. For it is too early as yet to elucidate the entire Vinland problem. What can now be done, with assurance, is to define the northern limits of Vinland in northern Newfoundland and the region of Belle Isle Strait.

This does not mean, and is not intended to mean, that there were no Norse voyages to regions farther south, to Massachusetts, Rhode Island, New York, or even to Maryland. But for the present these are incapable of proof, and must wait on archaeological discovery, whereas the case for northern Newfoundland as the Promontorium Winlandiae of Norse geographical tradition grows stronger each year. The decisive recent stages have been Vaino Tanner's monumental survey of the eastern part of the Labrador Peninsula in the late 1930s, Jorgen Meldgaard's travels from Hamilton Inlet to the Strait of Belle Isle in 1956, and the prolonged explorations of Helge Ingstad along the coasts of Labrador, Newfoundland and Quebec in the summers of the 1960s, culminating in his and Anne Stine Ingstad's discovery of what they claim to be early Norse ruins in Epaves Bay, just south of L'Anse-aux-Meadows in the Sacred Bay area of northern Newfoundland.

To argue the full case of Northern Newfoundland as the Promontorium Winlandiae would be a long undertaking,



Approximate routes, after map by Meldgaard.



Cape Porcupine and the Strand on the coast of Labrador.
JORGEN MELDGAARD

and since it has already been argued elsewhere, I confine myself to presenting its main features·

1. Northern Newfoundland falls within the normal belt of latitude of the Norsemen's western voyages.

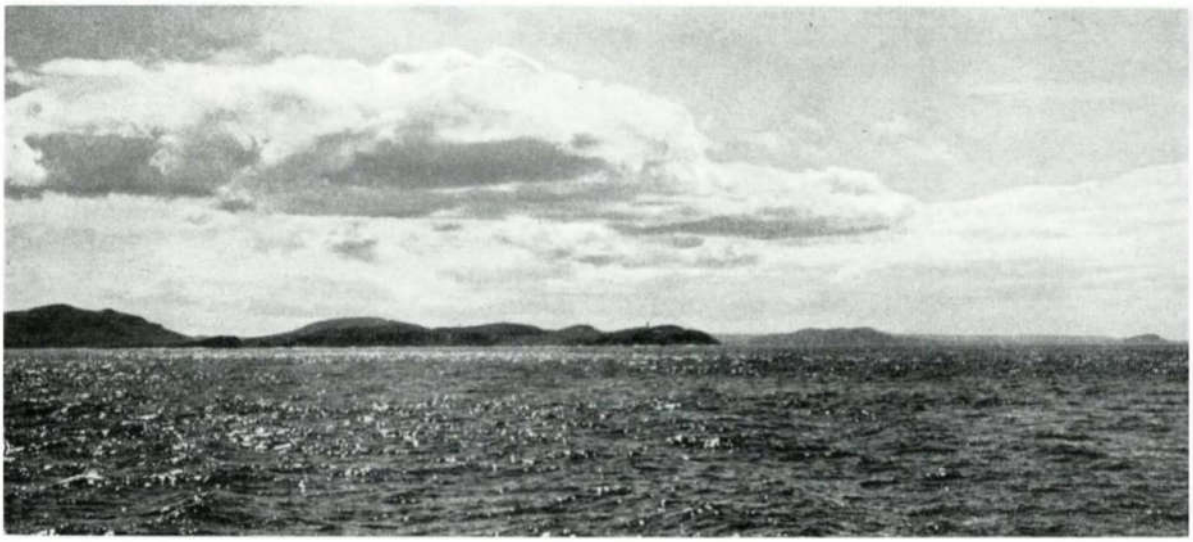
2. It accords with what we hear of the voyages and landfalls of Bjarni, Leif and Karlsefni.

3. To whatever destination the Norsemen were to sail on the course Greenland-Baffin Island-Labrador and farther south, they could not miss Belle Isle Strait and Northern Newfoundland.

shore of Lake Melville inside Hamilton Inlet, Labrador.

9. It accords with what we are told of the projected but abortive voyage of Thorhall the Hunter in search of Vinland.

10. The right of announcing a scientific confirmation of his L'Anse-aux-Meadows discoveries belongs to Helge Ingstad.* But it is permissible to point out that the Epaves Bay site has attracted human habitation over a long period of time, and that it would offer the Norsemen a simple sailing direction, an unmistakable landfall,



Vinland—the Promontorium Winlandiae—showing Cape Bauld at the northern tip of Newfoundland on the route of Leif, Thorvald and Karlsefni.

JORGEN MELDGAARD

4. It accords with what the sagas tell us about such topographical features as Straumfjord (Belle Isle Strait), Straumey (Belle Isle or Sacred Isle), Kjalarnes (Cape Porcupine), Furdustrandir (the Strand).

5. The area has the right configuration of sound or fiord, island, and cape projecting north (but admittedly is not alone in this).

6. It accords with the Promontorium Winlandiae of the Stefansson and Resen maps, and with Capt. Solver's reconstruction of the former "in proper proportion to degrees of longitude and on Mercator's principles".

7. It accords with what is known of the distribution of the local Indian and Eskimo populations *c.* A.D. 1000.

8. It accords with saga accounts of the death of Thorvald Eiriksson by an (Indian) arrow on a voyage which had taken him north then west from his base in Vinland. He would, by this identification, be killed at the mouth of English River, where it flows into the south

fresh water in abundance, a good anchorage, workable iron ore, timber and grass, fishing and hunting, and a desirable mobility by sea.

It will be seen that no comment has been passed on two of the most debated clues to the situation of Vinland. One is the statement of *GS* that at Leifsbudir, "The sun had there *eyktarstadr* and *dagmalastadr* on the shortest day *or* days (*um skammdegi*)", which is presumably intended to convey that the sun was visible at certain points on the horizon somewhere about 3 p.m. and 9 a.m. during the depth of winter, but whose precise significance in terms of latitude has done little save provide a headache for its calculators. The other is the name Vinland itself, whether it should mean, as it undoubtedly meant to Adam of Bremen and the sagamen, "Wineland", from *vin-* with a long vowel, or "Grassland", from *-vin* with a short vowel. The evidence is in favour of Wineland, but whether in the warmer climatic conditions of about A.D.

*Since this was written, Mr Ingstad's article on the Vinland site has appeared in the "National Geographic", November 1964. Ed.

1000 the Norsemen found vines in northern Newfoundland, or whether grape-clusters found their way into saga-tradition after voyages pressed farther south, who shall say?

A final word. More than two hundred years were to elapse between the known voyages to Vinland and their recording by the authors of *GS* and *ESR*, who had no first hand knowledge of the places they wrote about. It is not surprising then that the saga narratives show signs of confusion, faulty memory and garbled report in what they seventeen [var. eighteen] men on board. They had made a voyage to Markland, but were afterwards storm-driven here". This entry in the Annals is of great interest for the concluding days of the Norsemen in Canada. Presumably they had been to Labrador for timber, and maybe for furs too, and only the accident of their being storm-driven to Iceland (as it were Bjarni Herjolfsson, the first discoverer, in reverse) allows us to know of their venture. How many other such voyages were made, we wonder, in the preceding three centuries, and could

The Sacred Bay area of northern Newfoundland. Remains of ancient structures in this part of the country may prove to be those of early Norse settlers. NEWFOUNDLAND GOVERNMENT

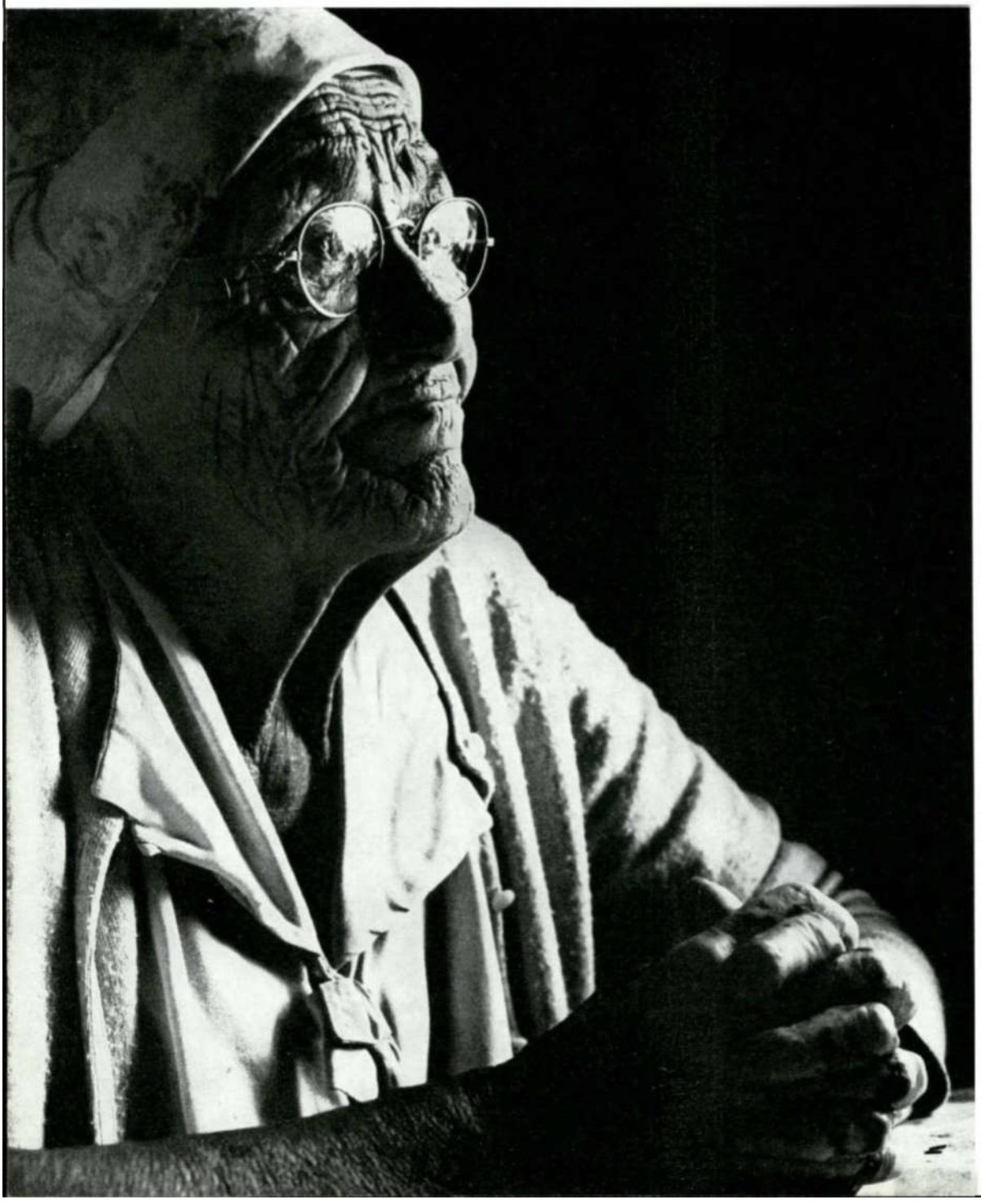
have to say about Leifsbudir, Straumfjord, and Hop. There is a very strong case for Norse contact with northern Newfoundland, a reasonable case for finding either Leifsbudir or Straumfjord or conceivably both on the one site there, but no weighable case for putting Hop on the map. Beyond these modest claims lies little save conjecture.

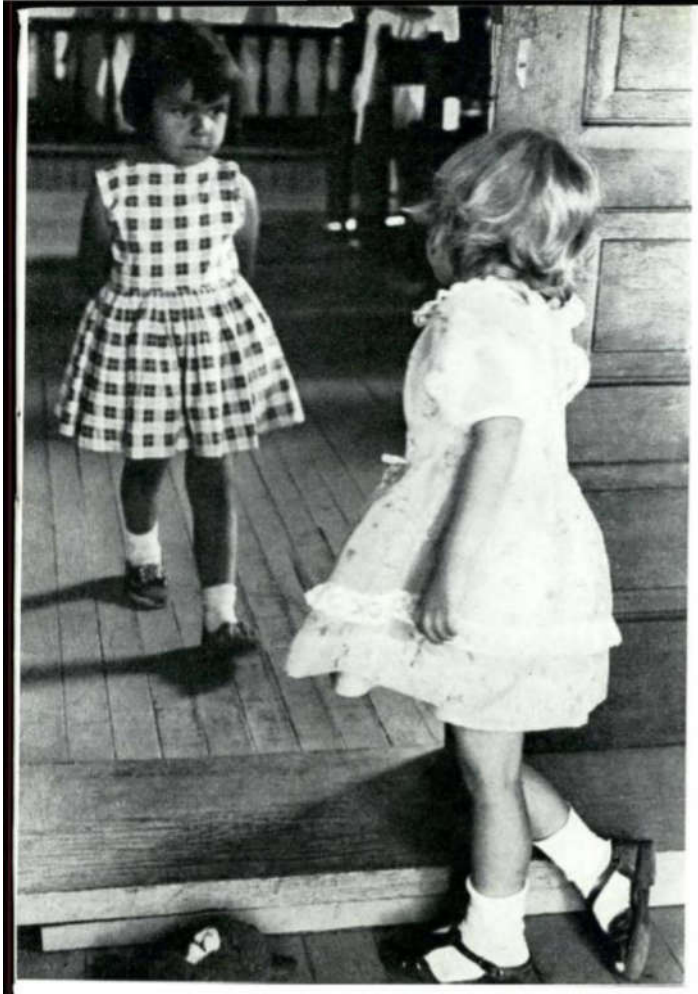
The period of settlement was a brief one, and while the memory of Vinland persisted in northern tradition it almost disappears from the written historical record. Suddenly in 1121 the Icelandic Annals announce that "Bishop Eirik of Greenland went in search of Vinland", to what end and with what result we do not know. Then, in 1347, out of a prodigious silence comes news if not of Vinland at least of its neighbour Markland. "There came also a ship from Greenland, smaller in size than the small Icelandic boats; she came into the outer Straumfjord [near Budir, in Iceland] and had no anchor. There were any such be undertaken again after the loss of the Western Settlement and the Greenland Nordseta in the middle of the fourteenth century? Mastery of any part of the Canadian coast, and of Vinland in particular, depended on a strong base in Greenland, superior weapons and steady reinforcement, and assured lines of communication. These the Norsemen no longer had, as the Greenlanders came to feel the remorseless pressures of geography and history, and Iceland and Norway ceased to be ocean-going nations. Wise after the event we now see that the Norsemen had over-extended themselves in the North Atlantic, and that compared with the enduring nation of Iceland and the 500-year colony in Greenland, the Norse entries into Newfoundland, Labrador, and Baffin Island, and, such as they were, into the islands and peninsulas farther north, were not of much importance in their own day, though to posterity they left a proud story, a high challenge, and a long enduring puzzle. ◆

Drawings on the map, p. 6, a Norse fleet, and the Norse ship, pages 7, 12 are from an inscribed piece of wood, 7" long, dating to the first half of the 13th century excavated at Bergen, Norway. HISTORICAL MUSEUM, BERGEN

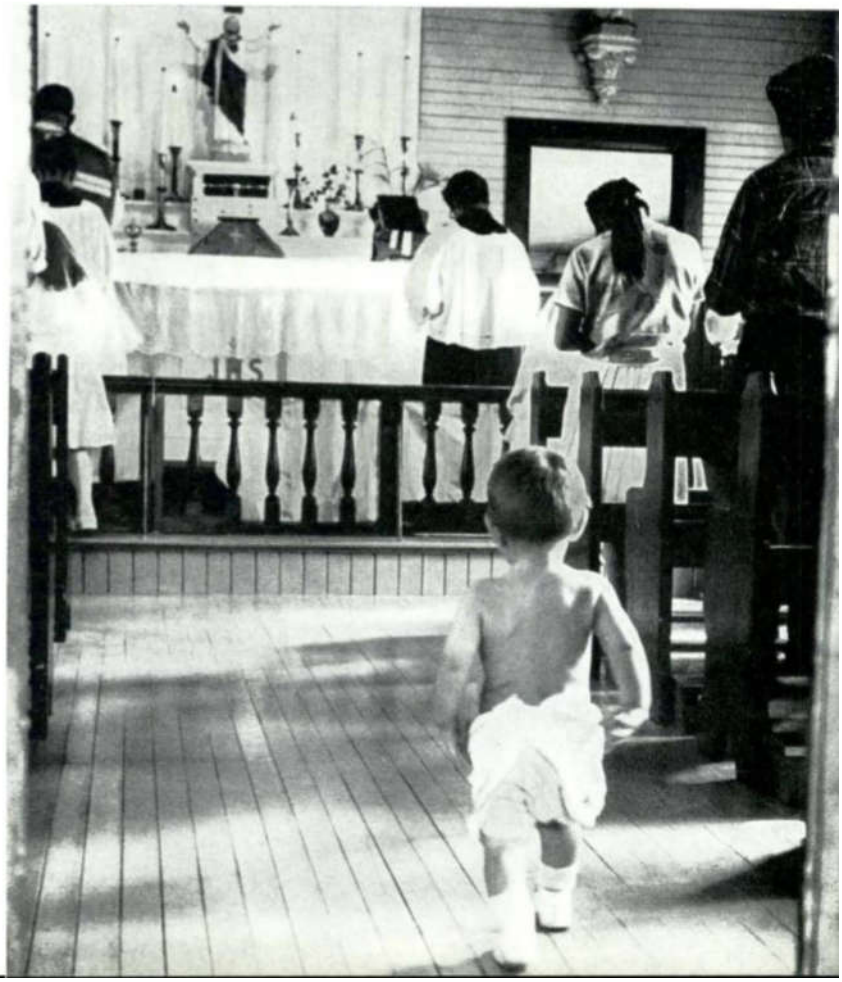
The Sabbath Day

BY FRED BRUEMMER

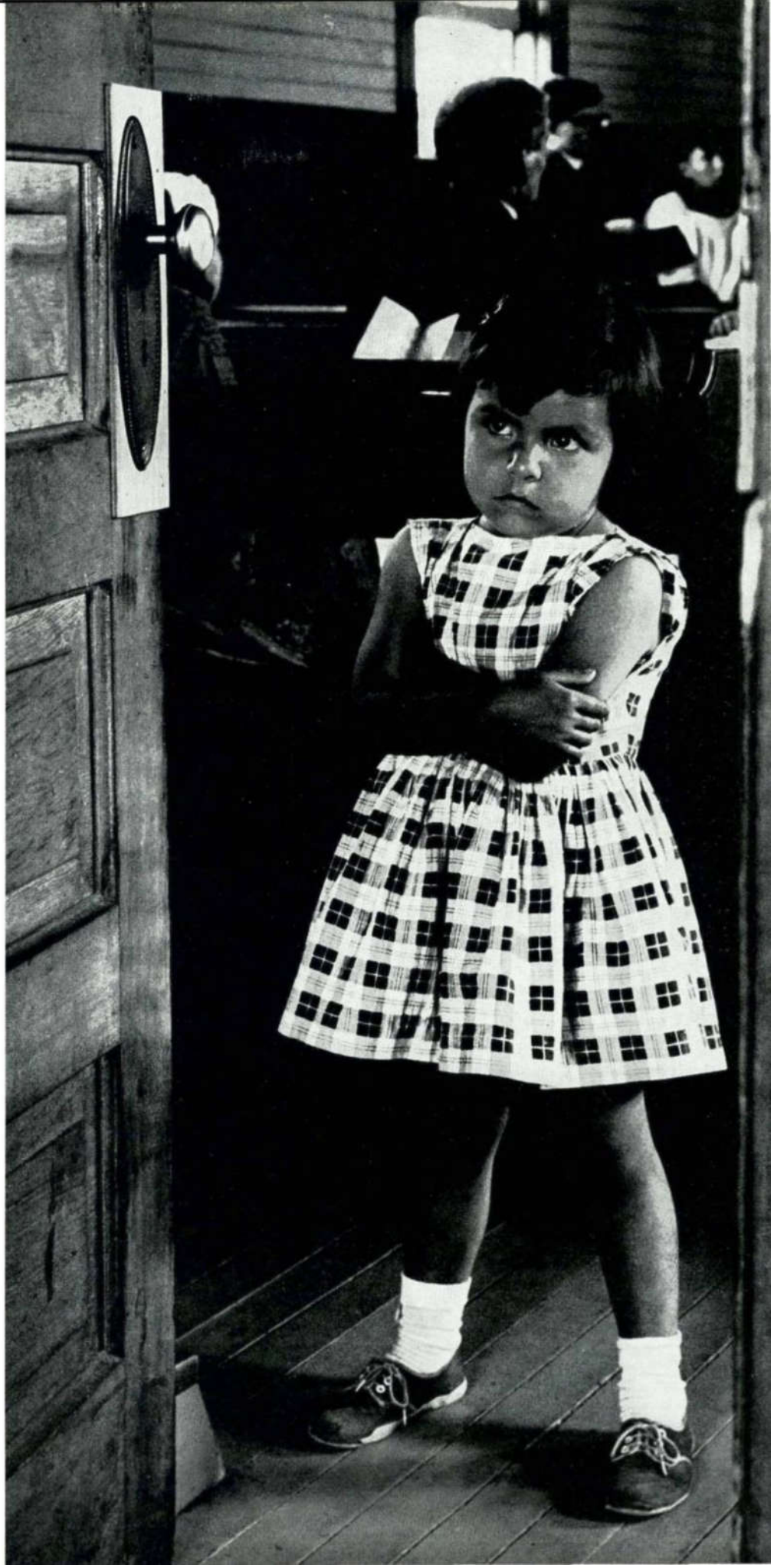


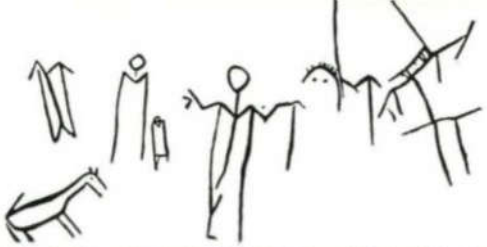


These photographs were taken as unobtrusively as possible during United Church and Roman Catholic services on Indian reserves. Dressed in their best, young and old come faithfully to the place of worship and in church one is impressed by the serenity of the adults and the gaiety of the children. The adults pray and the children play, and both seem happy with this arrangement. Neither priests or ministers nor worshippers ever seem annoyed by the children's antics. If they become too noisy someone usually takes them out for a while, but soon after they drift in again. This does not detract from the solemnity of the service and those children who are too small to understand it at least have a good time instead of fidgeting and wishing they were somewhere else.



The boys and man above belong to the small band of Delawares in Canada, an Algonkian people who came from the south in the eighteenth century to settle. The other people shown are Ojibwa.

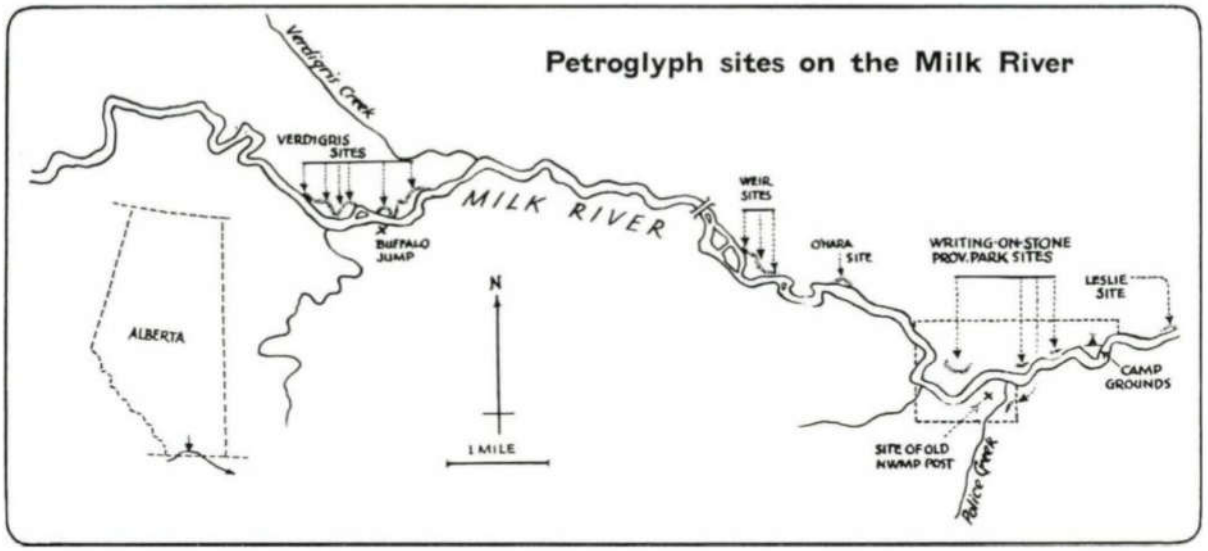




WRITINGS ON STONE
along the Milk River

BY SELWYN DEWDNEY

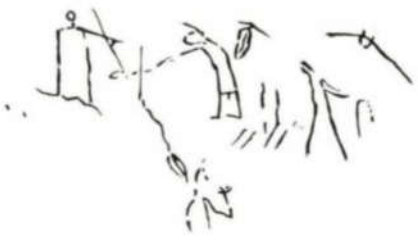
An art teacher by profession, Selwyn Dewdney has for some years spent all his spare time searching for and recording Indian pictographs, the unexplained paintings and carvings on rock that occur in scattered areas across Canada and in many other countries. Drawings and photographs are reproduced by courtesy of Glenbow Foundation.



IT WAS A MID-AFTERNOON late in July when my son Peter and I turned off Alberta Highway No. 4 at the little elevator town of Milk River, to drive east along a well graded road through miles of dry-farming wheat land. Far to the south, seeming to glide eastward with us, the Sweet Grass Hills humped the horizon just across the Montana border.

The shadows were stretching when we reached Writing-on-Stone Provincial Park and approached the edge of what looked like just another coulee. As the road dipped and swerved we stared to right and left unbelievingly. We had entered a world of fantasy, passing between grotesquely sculptured rock formations of every shape and size. The soft sandstone, capped by a harder stratum, had been eroded into weird pinnacles, hole-pierced arches and precarious table-tops, some glowing warm in the setting sun, others cold and ominous in the shadows. Below us the Milk River snaked through the flats, swinging from the sunlit cliffs on the opposite side of the valley to the shadowed ones we were descending. Then we were down, rolling smoothly under the green coolness of a cottonwood grove, to stop in the camping grounds.

The following morning Peter and I drove up again to prairie level and followed a trail westwards for a long mile before dropping once more to the valley. Here the cliffs rose from slopes of grass-grown talus to heights of fifty to eighty feet above the flood plain. Car trails of flattened grass up the slopes pointed to places where writings might be found. We walked up the second of these. That first glimpse dismayed me. I had heard that there had been considerable defacement but I was totally unprepared for the multitude of initials, names and dates cut everywhere on the soft stone almost obliterating the few aboriginal carvings. Surely it was not to record these that the Glenbow Foundation had invited me out from Ontario!



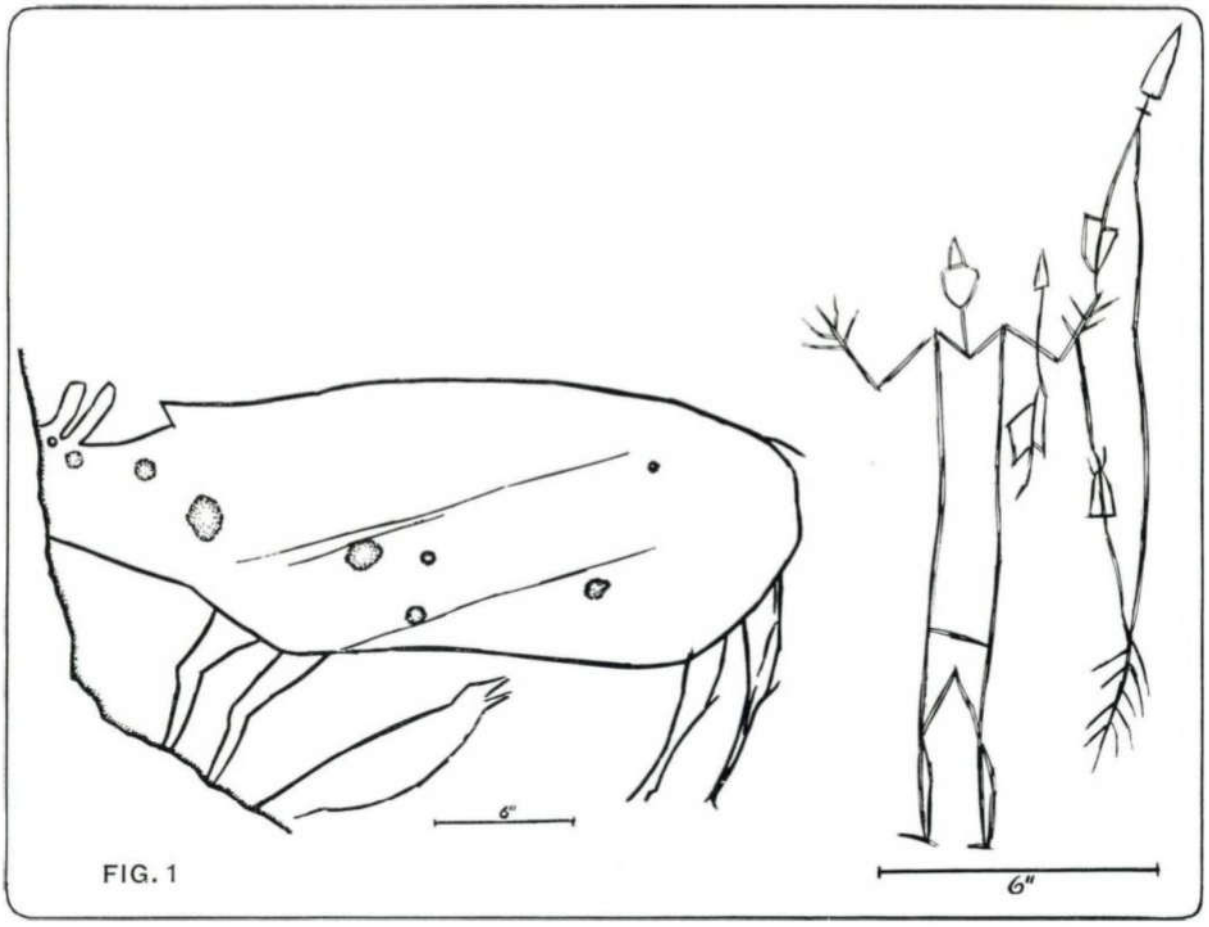


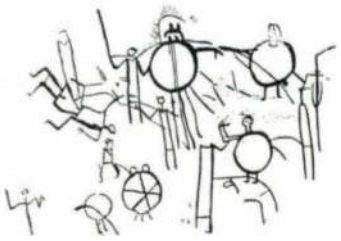
FIG. 1

Then Peter found another face, where numerous vertical grooves and peculiar human figures with V-necks—completely unlike any others I had ever seen—predominated over the marks of egotistical initial-carvers. Ten minutes later we stood looking up at petroglyphs, forms incised on rock, that alone were worth all the miles we had travelled. The drawings of two of these (Fig. 1) will account for my enthusiasm.

Strict accuracy in the reproduction of petroglyphs is ensured by the following method. First, careful tracings are made on Japanese rice paper. When soaked with water, applied with a sponge rubber roller, this paper becomes completely transparent and clings tightly to every irregularity of the rock surface. It is then simple to follow the incised lines that show clearly through with a sharpened piece of Conté chalk. When I make my reproductions at home later I scale down the drawings to a manageable one-third and transfer them to board. Each transferred line is then carefully checked for inaccuracies or omissions from colour photographs taken at the site. Sketches, written notes and measurements have also been made on the spot, to supplement the tracings and photographs.

The rock surface where these petroglyphs were found was hardened and patinated, although the broken edge at the left foreshadowed its eventual destruction. To confirm the impression of age the standing level that must have been used by the men who worked there had been so eroded that the lowest picture could barely be reached on tiptoe from the present ground level. Consequently the only defacements here were bullet marks. Erosion provided footholds up to part of the face, but to record the rest we had to build a small scaffold.

Very plainly, the man with the pointed shoulders and bow-spear was a prehistoric hunter. But what of the animal? Without horns, and with a mere stub of a tail



These and the figures at top of opposite page are petroglyphs recorded by C. M. Sternberg in 1915 at Milk River.

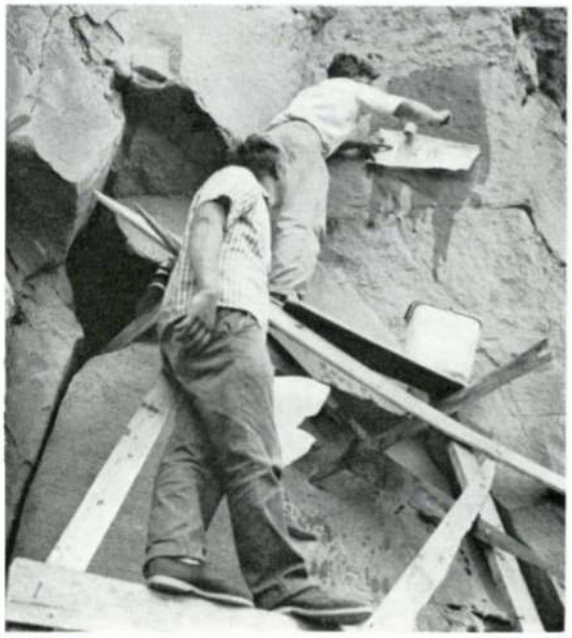
it was no buffalo. A deer, perhaps? My eye kept shifting back and forth between man and beast, puzzled by the pointed shoulder common to both. I thought of the V-necked men we had already seen, and *their* shoulders. Here was a style feature so strong that I could not ignore it, and from then on it was the "Pointed-Shoulder Style". I was unaware then that this was the only example I would find of a pointed-shoulder animal. There was a second large quadruped above this and well to the right. It had a round snout enclosing vicious-looking teeth, stood on short legs with four or five toes to a foot, and displayed a most peculiar broad tail that came to a sharp point at the end. The total beast was as unidentifiable as any I had seen in the Canadian Shield country, where equally enigmatic monsters suggest dream images, or religio-magical intentions that ignore the outward appearance of things. Along the Milk River, however, such ambiguous forms were the exception.

Walking east from this westernmost face we counted a total of twenty-seven groups of petroglyphs scattered along a mile and a half of rock — the largest pictograph site I have recorded anywhere. Happily only a few of these groups were seriously defaced, none as badly as the first one seen. There were a few rock paintings, technically petrographs, as well, but these had faded and were very difficult to see. Those we could make out were mostly circular in form, apparently painted versions of the much smaller carvings of circular figures which we found quite frequently, usually with head and feet added. I dubbed these "Round Men" until I learnt that some Plains tribes had used very large round shields, so I changed the designation of this second distinct style of rendering human figures to "Shield-Bearer". As can be seen in Figure 2 these men also used the spear-tipped bow. The elaborate head dresses and the devices on their shields indicate a more complex culture than that of the Pointed-Shoulder people.

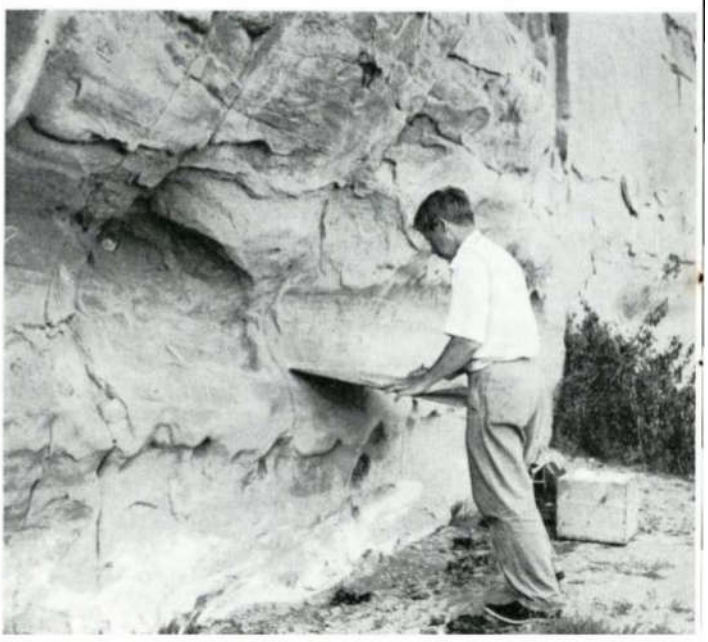
The archaeological assistant of Glenbow Foundation, Don R. King, and his family joined us at Milk River. It was he who identified the gap in the cliffs across the river from the place called by the Indians Writing-on-Stone as Police Coulée. Here, in the spring of 1887, a North-West Mounted Police outpost had been established, from which prairie patrols operated along the border for some thirty years. We had been told of a petroglyph site on the rocks near the post. We crossed the river and approached from the south to investigate. As we descended to the river flats the cliffs swung away clearing a long view across Milk River to the northwest and the inscribed rocks that had given their time-honoured name to the place. Where Writing-on-Stone police detachment had been nothing remained except the old wellhead, barely recognizable in the undergrowth, a massive watering trough made from a slab of the local stone, and an old iron bedstead. We lingered to pick up ball shot and pieces of broken English earthenware, then set out across the bush-choked mouth of the creek to scan the cliff bases for the writings we knew we would find there.

We had learnt to rely completely on information from local ranchers and farmers. From the very first they were eager to co-operate and keenly interested in our work. Foremost among then was Alva Bair. As a boy he had combed the district for "Indian sign"; as a man he was an expert amateur archaeologist—and incidentally one of

Fixing tracing paper over petroglyph with a wet roller.



The author checking tracings from the original glyphs.



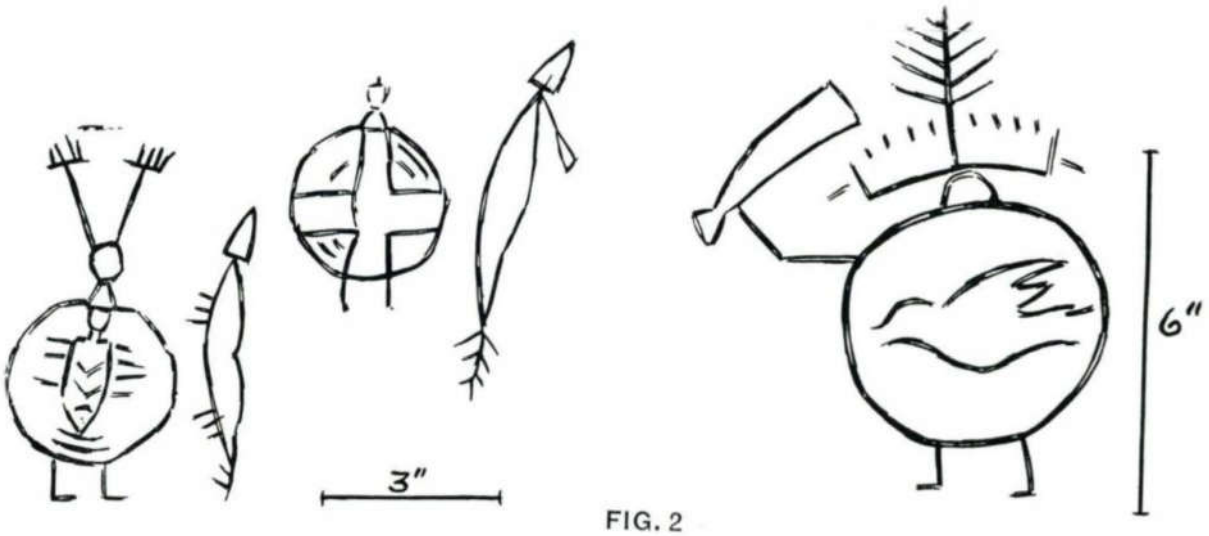


FIG. 2

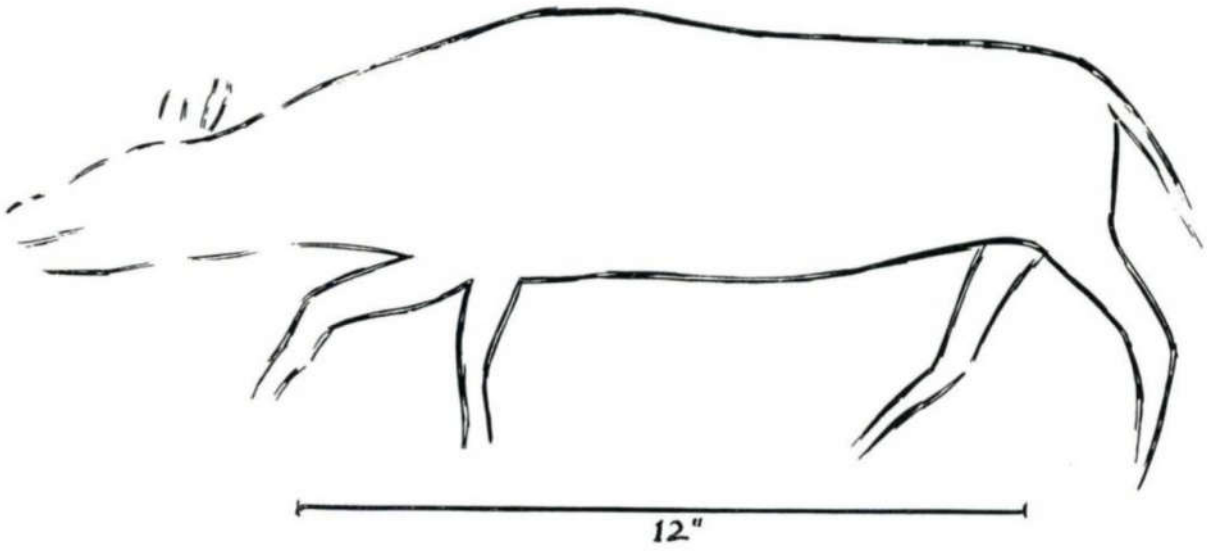


FIG. 3

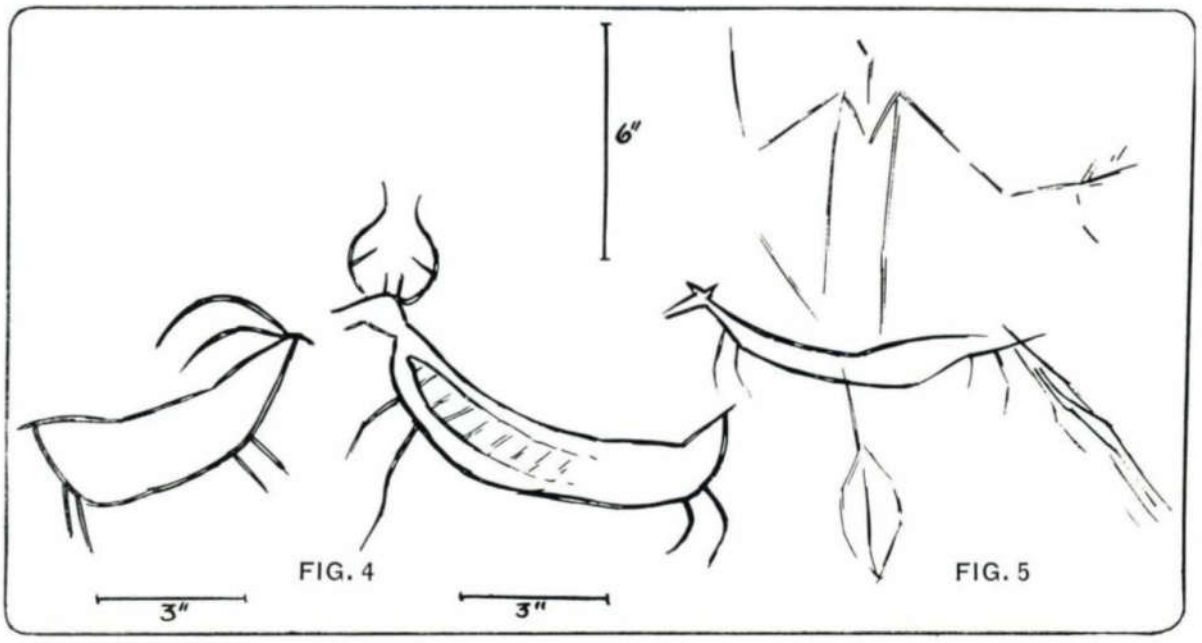
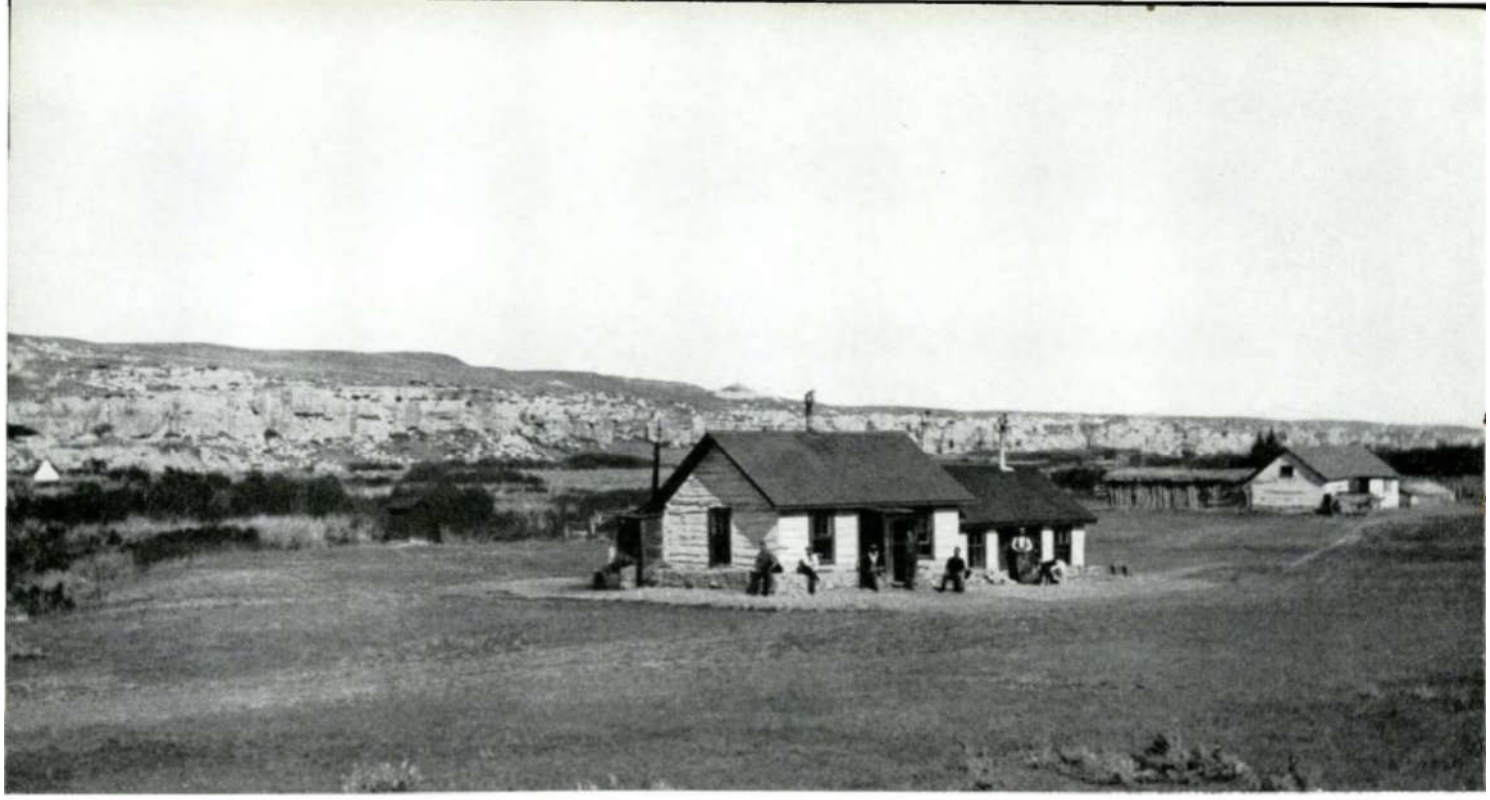


FIG. 4

FIG. 5



Writing-on-Stone Detachment of the North-West Mounted Police in 1897. Milk River flows between the buildings and the cliffs. R.C.M.P.

the most successful wheat farmers in the Milk River country. It was he who had led us to most of the fifteen separate sites that I recorded for the Glenbow Foundation on my two visits.

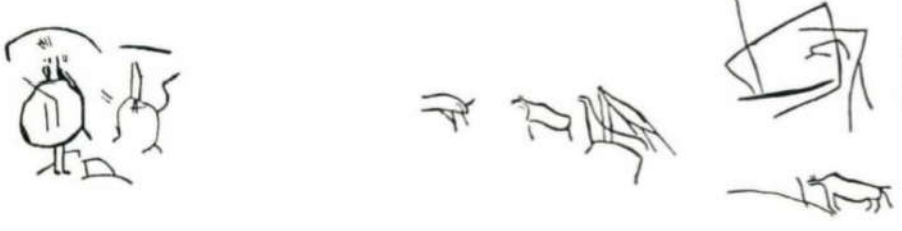
Of these fifteen the Police Coulée site was the fourth we found within the Provincial Park limits, but the only one on the south side of the river. Two were just outside the Park, one to the east on the Leslie ranch, one to the west near the O'Haras. Farther upstream near the Weir ranch buildings was a group of three sites. The final cluster of six was scattered over a mile of rock above the mouth of Verdigris Creek.

Directly opposite the Verdigris sites, on the south side of the river, was a spectacular "buffalo jump", where the bones of thousands of slaughtered bison had accumulated beneath the cliff over which periodic drives had sent the animals hurtling. All along the river, at levels no longer accessible to the beef cattle that have replaced the herds of former days, one may see the smooth curves of bison-rubbed stone. The O'Hara brothers told us that in the early days they had heated their house in winter with the stacks of buffalo chips they had gathered on the flats. Certainly there had been no shortage of bison here until the latter part of the 19th century and it was startling to find likenesses of the animal that had provided the "bread of the prairies" conspicuously absent from the drawings. Among the dozens of prairie animals that I recorded only five could possibly have been meant to represent bison, and of these a single animal, done in a very late style, was clearly recognizable. This seeming neglect is the more striking by comparison with the cave paintings of southwestern Europe where the animals that provided food for Upper Palaeolithic hunters were the favourite, and almost exclusive, subjects. One might conclude that a taboo against representing the animals on rock prevailed among the bison-hunters of the Milk River country.

Although the two main styles of human representation had forced themselves on my attention from the beginning, it was not until I had recorded most of the sites that I was able to sort out three distinct styles of animal renderings that appeared more than once. These I named the "Naturalistic," the "Boat-form," and "Mature Horse Styles".

The Naturalistic Style I took to be the earliest of the three. There were five examples: all large drawings, sensitive, graceful, subtly suggestive of movement, and cut with sure strong lines. All, too, were on hard, patinated surfaces well above the present standing level. None had escaped severe weathering, to the point in two cases of eliminating most of the animal. Two others, whose shoulder humps and long tails would otherwise identify them as bison, had no heads left. In fact, the animal in Figure 3 is the only one where even traces of the head are left.

It was the Verdigris sites that firmly established the second, Boat-form Style, in my mind. Alva Bair took us to them. As we approached the westernmost site we wondered how we were going to negotiate the formidable barrier of rock ahead where the horseshoe of cliffs



Glyphs recorded by C. M. Sternberg at the main site.

bordering the flat came to the river's brink. Alva merely slid down the steep bank, however, and led the way along a precarious footing between the river's edge and the base of the cliff. It was impossible to judge the depth of the swift water beside us, milky with suspended glacial clay. Just then Alva stopped in his tracks. It looked as if he were swearing under his breath, though he only said, with a bewildered expression, "Where did they get to?"

It was not until he had scanned the sixty sheer feet of sandstone ahead again and again that he finally pointed in happy recognition. With some difficulty at this oblique angle we made out the lowest carving, some twenty feet above the water, and still a dozen feet above the closest we could climb to it on a peak of the debris piled beneath. This, Alva told us disappointedly, was all that was left of the wide and seemingly solid ledge he had walked along only two years previously, from which the aboriginal artists had worked.

The following morning David King and I worked on three of the other Verdigris sites downstream. Here were clear examples of the Boat-form Style, strongly associated with both Shield-Bearers and Pointed-Shoulder Men (Figure 4). The mountain sheep, once common on the prairies, were unmistakable. Some indicated deer, although the branched antlers were too conventionalized for specific identification. Others were ambiguous, but they too shared the curious, turned-up ends.

A few of the latter puzzled me exceedingly, their boat-form exaggerated to the point of fantasy, with a feathery attachment at one end. The clue came in another group: Here, crudely carved but quite clear, was a pointed-shoulder man perched on the back of a boat-shaped but otherwise featureless beast. The only possible interpretation was "Man on Horse". I leafed quickly through my field notes and looked again at a creature with a feathery tail that I had sketched only two hours ago. There, above

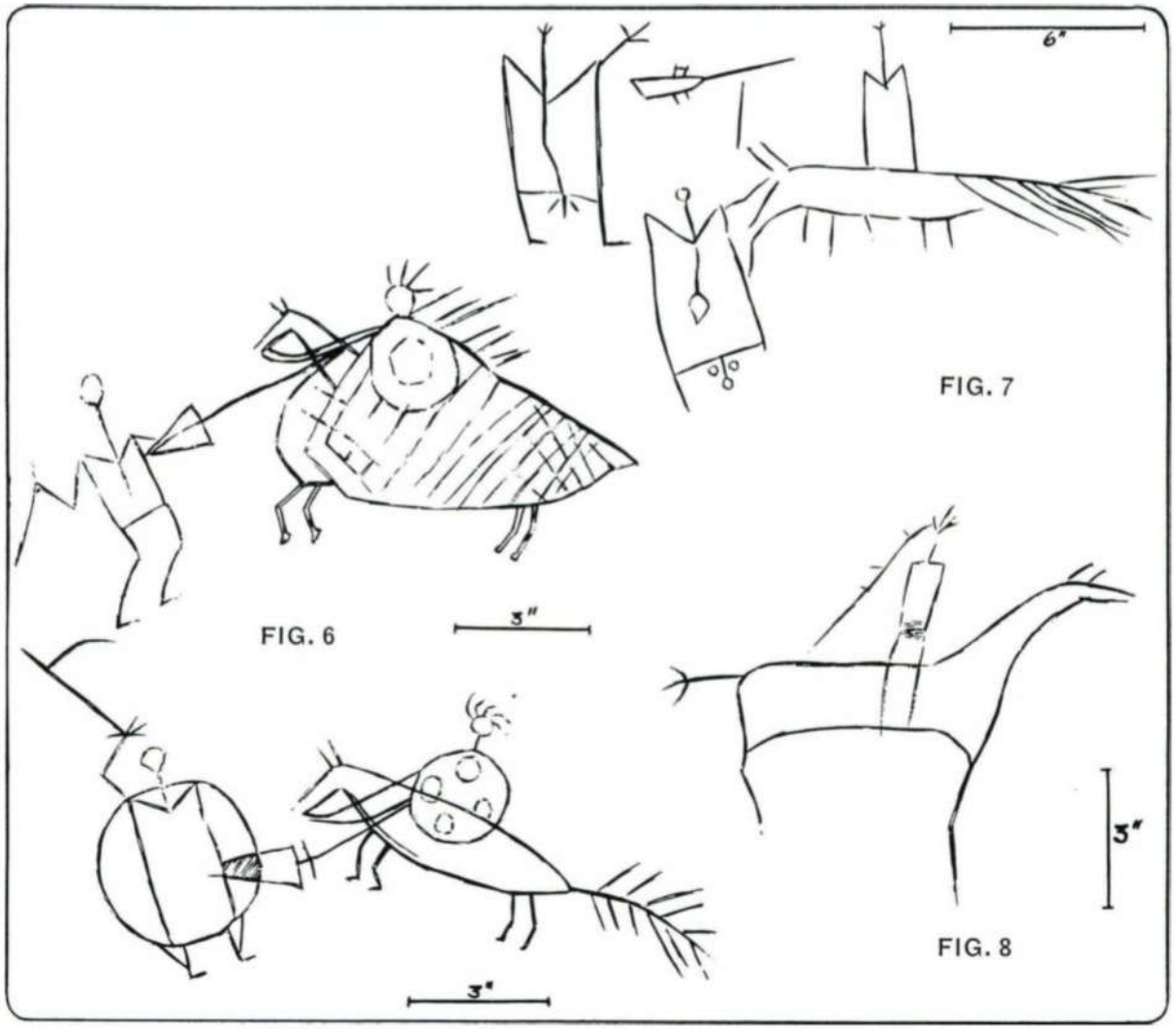


FIG. 6

FIG. 7

FIG. 8

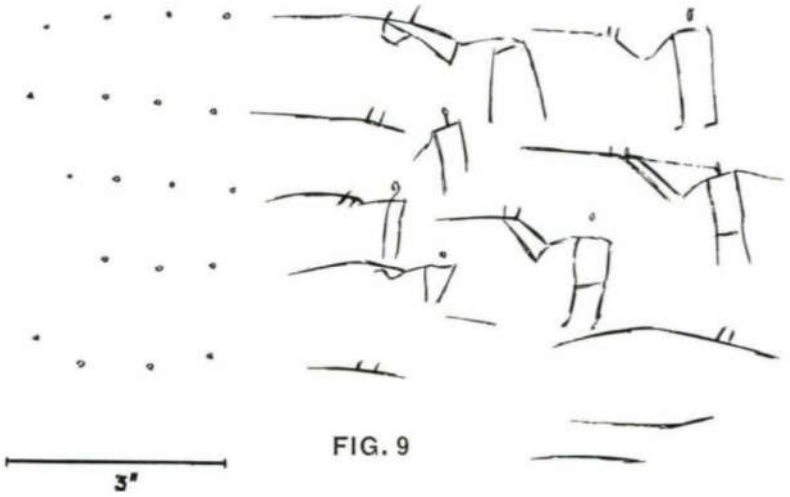


FIG. 9

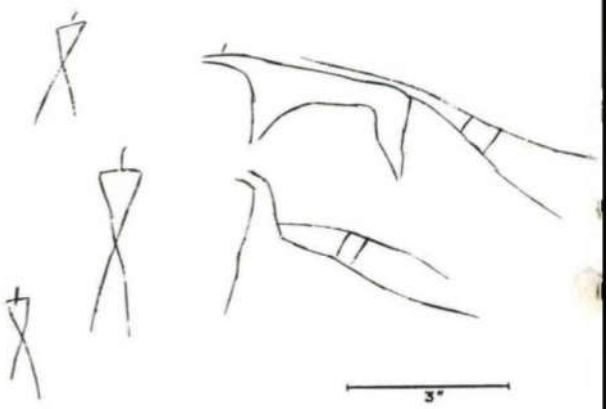


FIG. 10

it, but so vaguely associated that my mind had failed to make the connection, was a pointed-shoulder rider (Figure 5). Now both the fantasy of the form of the unmounted horses and the clumsiness of the attempt to render the mounted ones became logical. Here were the first reactions—perhaps derived from rumour rather than observation—to the coming of the horse.

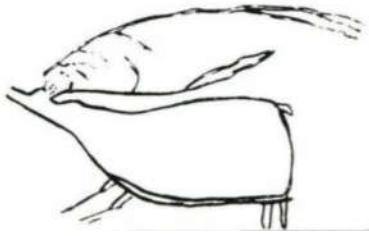
Alva had already told us that there were some very interesting horsemen on the westernmost site, and I was eager to see them. But first the heavy scaffold legs had to be manoeuvred along the riverside and set up on the crumbling rock fall. Finally I was perched on a plank between the two legs, high above the river, staring with delight at the carvings. For here was a priceless record of two major events in the history of the Plains people: the appearance of the mounted warrior, and the arrival of firearms.

I was looking at two combats in each of which a mounted man was attacking an unmounted one (Figure 6). Both men on foot had the pointed-shoulder of the local style, the second apparently also a shield-bearer. The horses, too, are in a state of transition, the one clearly deriving from the Boat-form Style. In both pairs a new naturalism seems to be emerging, not so much in the forms as in the attempt to show action, of which there is no hint in the "pre-horse" carvings. Here, on stone, were the beginnings of the widespread Plains Indian practice that reached its peak in the mid-nineteenth century of painting elaborate, detailed and highly naturalistic picture stories on hides. And, although the riders are now firmly attached to their horses, a convention has yet to be developed to solve the awkward problem of showing the rider's legs, though the strange covering over the first horse, apparently some kind of woven material, conceals the legs.

The group of three Pointed-Shoulder men in Figure 7 is not so clear, and by that token alone could be earlier. The argument centres around the question of whether the one man is mounted or not. The tail alone suggests an intended horse. On the other hand the gun is most definitely just that, and nothing else, which would imply a later date than the attackers with spears. There is some sorting out to be done here, but there is no doubt as to the essential message of all three drawings: that both firearms and horses have arrived on the Milk River.

The third and most recent style of animal rendering, the "Mature Horse Style," appeared as a minor feature in a majority of Milk River sites. Invariably a strong preference for the horse as a subject is shown, with an obvious delight in the speed and grace of the new animal. Occasionally deer and elk—and in one instance an authentic bison—are shown, but the sheep seem to have disappeared. Most of the figures in this style are far smaller than average, and the lines are so light and fine that only their freedom and expressiveness prevents me from calling them scratches. The horse and rider in Figure 8 show that a convention has been established for adding the latter's legs. This treatment, as if the horse's body were transparent, persists in the hide paintings well into the 19th century.

The unique creation in this style is the "Battle Scene", as I call an isolated group of petroglyphs in Writing-on-Stone Park east of the main site. The drawings in Figures 9 and 10 give us a mere glimpse of the thirty men with guns, forty-five other human figures, twenty-two tipis and nine horses all concentrated in a single integrated composition within a space of twenty-five square feet. The whole is clearly intended to tell the story of a battle. On the left a line of men with rifles defends a circular encampment against the attacking force on the right with



its opposing rifles. Between lines are a number of individual combats. Only one combatant is mounted. The other horses, some harnessed to travois, are in the rear. They may belong to the third group of men, one bowman the rest with guns representing either reinforcements or a surprise rear attack.

The prevailing technique in the Battle Scene is in the Mature Horse Style; but there now seems to be some doubt in the artist's mind as to whether human figures should be shown with box bodies or hourglass ones; the latter, a wide-spread convention across the continent, often appears in the Canadian Shield sites. Obviously, both horses and guns have now become a familiar part of the combatants' lives. Yet the evidence, and comparison with hide paintings, suggests that we are still in the 18th century.

Given such dating clues the temptation to jump to conclusions is irresistible. We know that somewhere on the western plains, and sometime in the middle decades of the 18th century, two waves of history met. From the south came horses. From the east came firearms. Possession of either one changed the tribal relationships and customs of centuries; their coincidence produced even more profound transformations. Purely speculative by scientific standards, my own tentative chronology for the renderings of the Milk River petroglyph styles goes like this:

Late: beginning about 1760 (Figs. 8-10):

Animal	Human
Mature Horse	Box and Hourglass Bodies
Early Horse	

Middle: beginning before 1700 (Figs. 1, 2, 4-7):

Animal	Human
Boat-Form	Shield Bearer
	Pointed Shoulder

Early: beginning before 1650 (Figs. 1, 3):

Animal	Human
Naturalistic	Early Pointed Shoulder
Archaic	?

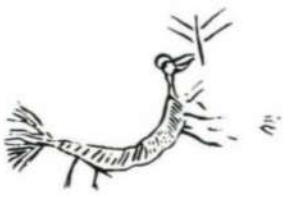
To what extent are these conclusions, based on subject matter and style, supported by weathering and erosion? The direct action of weather factors on individual rock faces gives little guidance. In 1915 Charles M. Sternberg on a Geological Survey expedition photographed groups of glyphs at the main Writing-on-Stone site. Drawings by Harlan I. Smith from these photographs were published by the National Museum and I was able to compare them with the originals. There were minor differences but it was astonishing to find that some faint lines, too subtle to show on the early photographs yet clearly extensions of lines that had been recorded, were still on the rock. Half a century of weathering had failed to erase even these faint lines. Yet many details of the "Battle Scene", incontestably more recent, have already vanished. Cattle-rubbing partially accounts for this, but variations in the rock itself and in the way each face is exposed to sun, rain and wind are other important factors.

Some surfaces are harder than others. Frequently we noticed that freshly fractured surfaces could be so soft that bushes growing close enough to the rock to be blown back and forth along it had scored the arc of their sway as deeply as a quarter of an inch. Rock-fall, too, seemed prone to disintegrate quickly. And yet there was evidence that fine particles of sand or clay, whipped along other rock faces by prairie winds, or driven by rain, could harden and make more compact both the surfaces themselves and the lines incised in them. The rust-tinted patination of many such faces suggested the action of an additional cementing agent: the iron oxide present in the rock and conveyed to the surface by water that must always be penetrating so absorbent a sandstone. Variations in drainage, iron content, and exposure, would probably suffice to explain why some surfaces harden and patinate more than others. But when we find that carvings in these harder, tinted surfaces are usually too high to reach, we cannot escape the conclusion that erosion has lowered the original standing level, and that these faces have been exposed longer than the softer, lower ones.

In looking for the oldest glyphs we should expect to find fewer examples than of more recent ones, and that these few were invariably on harder, patinated faces out of reach of the present standing level. These conditions are met by the Naturalistic Style of animal forms. They are also met by the single Pointed-Shoulder style of animal in Figure 1. Could it be, indeed, the sole survivor of an even older Archaic Style out of which the Naturalistic developed?

To reach any valid conclusions about the dating of the Milk River writings we must learn more about the origin and movements of tribes in the area. We must also learn more about the distribution of the local styles of pictograph. Both paintings and carvings in the Pointed-Shoulder and Shield-Bearer styles occur in Montana sites but the relationships have yet to be studied in detail. A handful appear in the Alberta foothills and mountains. There may be others in more northerly sites.

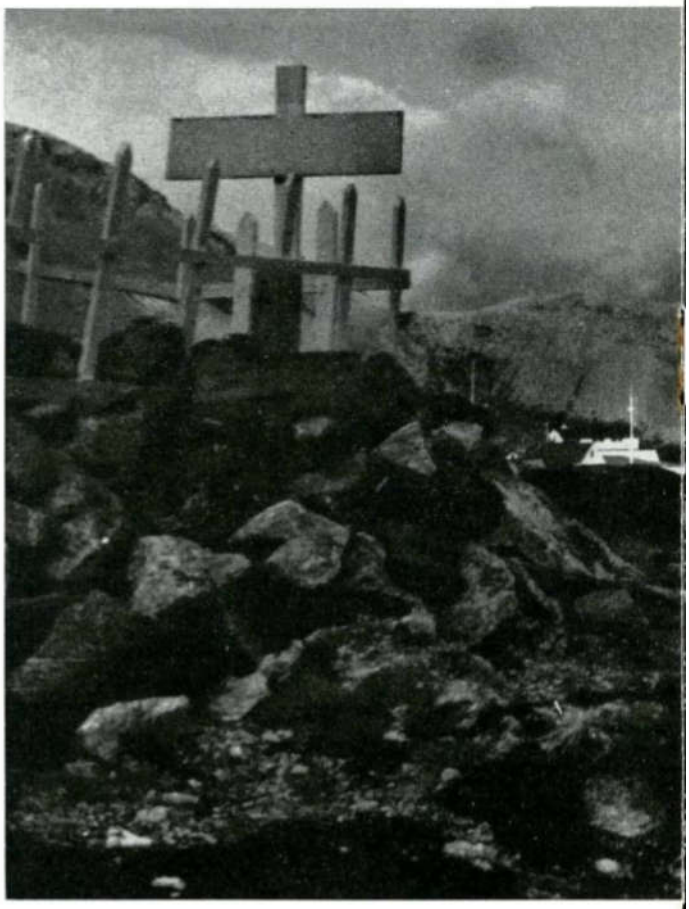
So far I have recorded one hundred and ninety sites of rock art in Canada east of the Rockies. With the help of informants who will tell me where sites are to be found I shall continue to seek out and record this art whose origin is still baffling. ◆



A Nurse goes to Baffin Island

BY CAROLYN K. SOPER

In the days before radio and air communication mitigated the isolation of the Arctic, Mrs J. Dewey Soper accompanied her husband, of the Department of the Interior, to Lake Harbour.



Lake Harbour.

THE FIRST REALIZATION that we were actually Arctic-bound came to me when our two-year-old son Roly exclaimed, "Mummy look at all the grease!" Looking through the porthole, we could see nothing but ice—miles and miles of it stretching off to the distant horizon. We were in ice-pack in the North Atlantic, our destination Lake Harbour on the south coast of Baffin Island.

We had left Montreal in 1930 on one of July's loveliest days on board the Hudson's Bay Company's S.S. *Nascopie*. My husband's duties were to consist of zoological investigations and exploratory surveys for the federal government and I, being a graduate nurse, was prepared to render any service within my capabilities to the Eskimos of the district.

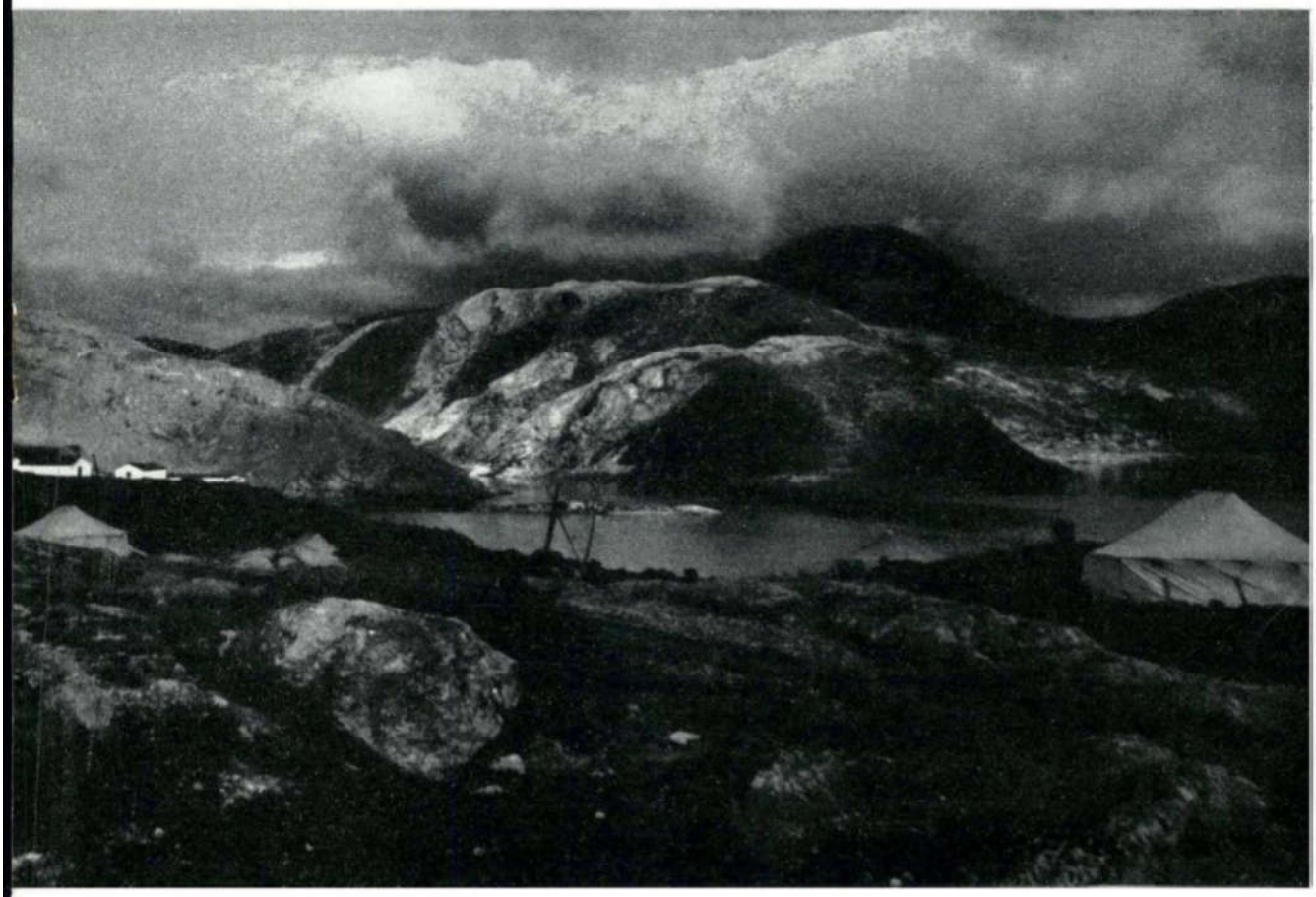
Our destination was reached after sixteen relatively calm and uneventful days. The occasional monotony was nicely relieved by calls at various posts *en route* for the purpose of unloading the annual supplies, taking on the winter's catch of furs and transporting personnel. Cartwright, for instance, was one of these ports of call; a neat little village on the Labrador coast nestled in a setting of rugged hills near the edge of the tree limit. It was here that Sir Wilfred Grenfell established one of his early missions and a hospital.

In all honesty I cannot say that my first impression of my new home surroundings, for the next two years, was a very favourable one. From the ship's deck I looked across to the rocky shore where a small collection of white buildings huddled against a background of huge barren and sombre hills. At first it seemed forbidding in the extreme with not a tree or a blade of grass to be seen—and here I must stay at least until the ship returned next year.

Immediately the ship dropped anchor the Eskimos flocked aboard. Ship time is a great occasion when they meet all their friends and receive repeated handouts of tea and ship's biscuits. Many are hired to help unload and store the tons of supplies that must meet the needs of the population for another full year. Men, women and the older children engage in this operation and the work goes on with feverish activity until it is completed.

The day and night rush is necessary as the season is pitifully short; the ship has a long voyage to take and must return south before the ice begins to form. It was a common sight to see a little Eskimo woman carrying a ninety-pound bag of flour, a child grasping her amautik, or parka, and a baby being carried on her back; the baby is never left behind; the back of the mother's parka is cut amply wide and deep especially for this purpose.

Once the cargo has been landed there is another "tea party" aboard ship with a movie thrown in for good



CHARLES GIMPEL

measure; this is the final ritual. When it is concluded, all but the ship's company make a dash for small boats and kayaks and head for shore. Immediately there is the weighing of the anchors and, with a few farewell blasts from the whistle, the *Nascopie* sails out of the harbour for distant ports, leaving us strictly on our own for another year.

The settlement of Lake Harbour was started in the year 1909. It was founded by an Anglican missionary who built a church and a mission house. Two years later the Hudson's Bay Company established a post across the bay from the mission, though the little church is but a few hundred yards from the Company residence. The whole establishment was laid out with wide, sanded walks, bordered with whitewashed stones, winding round to the house, trading post and warehouse. Directly across the bay was the mission house where the minister and his wife lived and close by was the three-man detachment of the Royal Canadian Mounted Police. This comprised the village of Lake Harbour. Before our arrival the population consisted of nine white people and a handful of servants; about three hundred Eskimos resided in the district, but were chiefly seen at the post only on special occasions.

Happy, smiling faces of Eskimos greeted us as we came ashore for the last time to take up residence. Here were many women with small children hanging onto their parkas—some with bright-eyed, dusky little babies peeking out of the mother's hood, while other women were sitting on the ground breast-feeding children that, according to our standards, should long since have been weaned. I noticed one group of women laboriously cleaning a putrid walrus hide; this is accomplished with a crescent-shaped knife called an *ulu*; after scraping off all excess fat and tissue, the skin is treated with coarse salt ready for shipment to the "outside." The meat is used for human consumption, as well as dog feed; along with seals, the walrus is of great importance in the general economy of the Eskimos. A walrus may range up to a ton in weight and thus provides a large amount of meat; heavy lines are also made from the hide and many ivory articles are fashioned from the tusks.

Lake Harbour Eskimos aboard the "Nascopie."
LORENE SQUIRE

Carrying freight that has been unloaded from the "Nascopie."
J. W. ANDERSON

In 1930 it was rare for a white woman to venture into this forbidding land, so Roly and I were as much of a curiosity and topic of conversation to the Eskimos as they were to us. The wife of the Anglican missionary had arrived at Lake Harbour the previous year, but Roly was the first white child the Eskimos had ever seen; with his blue eyes, fair hair and skin he was an never-ending source of interest.

Our first concern was a place to live. Lumber for a scientific station, with living quarters, was scheduled to come on the government supply ship sometime in late August. My husband, with the help of Eskimos, would build the structure which would be home during our stay. In the interim, four of the H B C men doubled up in their quarters, making available a room for us that was deeply appreciated; thus we roomed and boarded happily at the post until our home was ready.

We had arrived at the height of the arctic summer and closer contact softened the first bleak impression. Rushing streams with rapids and waterfalls fed by melting snow were tumbling down the mountainsides on their way to fresh-water lakes, or the open sea. Little arctic poppies were waving and nodding to us nearly everywhere in moist depressions, together with the tiny purple saxifrage, rhododendron, lousewort, cottongrass, and white heather. In some places the rocky slopes assumed a solid mass of colour. All species of flora are dwarfed owing to the high latitude and severe climatic conditions and it seemed that all the arctic flowers lacked perfume with the exception of the rhododendron, or Lapland Rose Bay.

There was a great deal to be done before the lumber finally arrived for our house. My husband wanted to take advantage of open water and fine weather to start his work and to do this it was necessary to engage a reliable Eskimo assistant. Such a man is an expert with boats and dogteams and also as an igloo-builder and hunter. A man named Moosa was hired for a year and with him were acquired his team of fourteen dogs and his family. The latter comprised his wife, Neve, the small daughter, Mary, and the little adopted son, Noah. (There was a tendency to adopt English names for the children.)

Eskimos are not a prolific race; families are small and many of the women are barren. A son is always an important addition to the family as he will provide for his aging parents when they are too old and feeble to hunt and fish. So it came about when the first child to Moosa and Neve was a daughter and the prospect of a son seemed remote, a kind neighbour with two sons gave one of them to Moosa and Neve for life. This made them very happy. However, shortly after our arrival Neve gave birth to her second child—a boy whom they called Pudlow. Now Moosa and Neve had two sons and a daughter and were considered to be very well off indeed. It is of interest that they were not obliged, ever, to return Noah to his real parents.

This, then, was our attached Eskimo family. We were responsible for their welfare, which included weekly rations of food from our stores. They built their snow igloo in winter and their tent, or *tupik*, in summer near our buildings where they were always handy when needed. Moosa received a monthly wage, plus food and

The Sopers begin work on their Baffin Island home. SOPER

tobacco, and was required to accompany my husband on all trips as his constant companion, as expert in handling of boats, as dog-driver, igloo-builder, and top-ranking hunter for dog feed and museum specimens. He soon endeared himself to us by his high degree of efficiency and good judgment, to say nothing of his unfailing, cheerful optimism in the face of any and all adverse conditions.

It fell to Neve's lot to make our Arctic clothing. Caribou skins were used for winter; duffle cloth for summer; and our waterproof boots, or *kamiks*, were made of sealskin. No patterns were used. She studiously looked us over for size and then went to work. In what seemed to me a remarkably short time, she returned with our duffle parkas and pairs of sealskin boots for the three of us. Without doubt the hardest part of all was preparing the skins and subsequently keeping all our boots in condition. The work does not end with removing the hair, drying the skin and making the *kamiks*. Each time they are worn and become damp or wet the skin dries very hard and must be softened before the boots can be worn again. The only method of softening them effectively is by chewing and this is done by the women. The teeth of many of the older women had been worn down to the gums from a lifetime of chewing sealskins.

Accordingly, it was up to Neve, among her many other duties, to chew and soften our boots as well as all those of her own family. I was later to learn that there is a salty flavour in the skin that somewhat compensates for all the mastication. It was not an uncommon sight to see the children at play chewing away on a piece of sealskin with apparently as much enjoyment as one of our youngsters would with an all-day sucker.

Shortly after the *Nascopie* left there was a tragic period when a deadly sickness broke out among the Eskimos. I tried hard to diagnose and treat it but soon felt utterly helpless. The symptoms were a sore throat and difficult swallowing, with very little rise in temperature. The onset was sudden with death occurring in about two days. After the first two sudden deaths the Eskimos became panicky and apathetic in the face of what appeared to them certain death; and all too often this was the outcome. On one sad day five wooden coffins passed along the sandy path to the little cemetery among the rocks. In spite of painstaking effort night and day, eight deaths occurred before the epidemic finally subsided; and throughout all this the best I could do was to treat the symptoms to the best of my knowledge.

The following year the ship's doctor diagnosed the outbreak as respiratory polio—the first known occurrence in the Eastern Canadian Arctic. All concerned were deeply thankful that it was not more devastating.

The government ship was now overdue and we consequently watched for it hourly. The materials for our home, as well as food and coal were on board, and we were anxious to get established before the onslaught of winter. A home site had already been cleared of rocks and other debris on a fairly level patch of ground that would accommodate the house, the warehouse and moderate-sized front and back yards. The front view would overlook the sea so that we could watch the rise and fall of the tides, the comings and goings of boats and kayaks in summer and the numerous dogteams during the long winter.

At last, in early September, an excited shout of "*oomeakjuak*," signified the arrival of a big ship. We all ran outside to see for ourselves and there, sure enough, was a tall column of black smoke far out to sea. The S.S. *Beothic* arrived in a couple of hours. All our cargo, together with coal and supplies for the R.C.M.P., was unloaded in short order.

The erection of our home began the next day. With the help of four Eskimos and two H B C men, the structure took shape in a surprisingly short time. As each room was finished I followed along painting and varnishing and by mid-October we were comfortably settled. It was not a bit too soon. Cold winds with driving snow had already replaced the languid days of summer and early fall; several inches of snow now covered the ground and the fresh water lakes were firmly frozen over. That year we were extremely fortunate, as some seasons real winter conditions arrive by the latter part of September.

This was our first home in the Far North. It was a comfortable five-roomed bungalow heavily insulated in floor, walls, and ceiling. Together with a coal-burning cook stove, we had ordered two circulator heaters—one for the living room and the other for my husband's combined office, laboratory and dark room. However, since the fire was never allowed to go out in the kitchen stove we found that, for the most part, this alone sufficed

Playmates — Mary daughter of Moosa and Neve, and Roly Soper.

to heat the whole house. We were the envy of the other three establishments whose quarters had been built at an earlier period when insulation was virtually unknown. Consequently, these houses were cold and draughty and warm clothing had to be worn at all times during the colder months.

There was a small room at the back of the house that I nicknamed "the admitting room." Here the Eskimos came for treatment and medicine for the various ailments that beset them. The only doctor on the island was hundreds of miles north at Pangnirtung Fiord and, with no such thing as a hospital, I was their only source of help in time of illness. Troubles were numerous and varied. There were abscesses to lance; liniments to dispense for sprains; dressings for cuts and bruises, and pills for a variety of internal shortcomings. It was soon discovered that my services were not required for maternity cases despite the basic age-old complications.

Shortly after our arrival in the country I was told that Neve was expecting another child. I had no idea when the baby was due, nor, apparently, had she. Dates are of little importance, as no special preparations are made for this notable event. When she did not appear for her rations, on a particular Saturday morning, my curiosity was aroused and I went to pay her a call.

On entering Neve's *tupik* I found her kneeling on the sleeping robes industriously stitching on a pair of sealskin boots, while sitting at her back and giving her some support was old Iggalak, the midwife of the village. She greeted me with her usual happy smile as I took a seat on an upturned packing box. By this time I had acquired a few words of Eskimo and, with this limited vocabulary and gesticulations, I asked her if she was in pain; again the broad smile as she said, "*Ee mikkeuapik kisseanne*" (yes, only a little) and then motioned to her back. I watched her closely for an hour, determined to see how these women managed in childbirth and also to offer my assistance should it become necessary. She continued her sewing, chatting and laughing heartily with old Iggalak as though some bit of gossip particularly tickled their fancy.

Then I was called for lunch; since there was no sign of acute pain or discomfort I left, returning in about an hour's time. To my utter amazement and incredulity Neve was outside her *tupik* washing some articles of clothing, while safely tucked in her hood was the infant Pudlow that had been born only about half an hour earlier. I can well imagine the look of astonishment on my face; no doubt it was this that caused her to burst into a fit of laughter. Now she hastened to assure me that all was well, except her back was a little sore; but she agreed to take my advice to lie down for a while when her immediate jobs were finished.

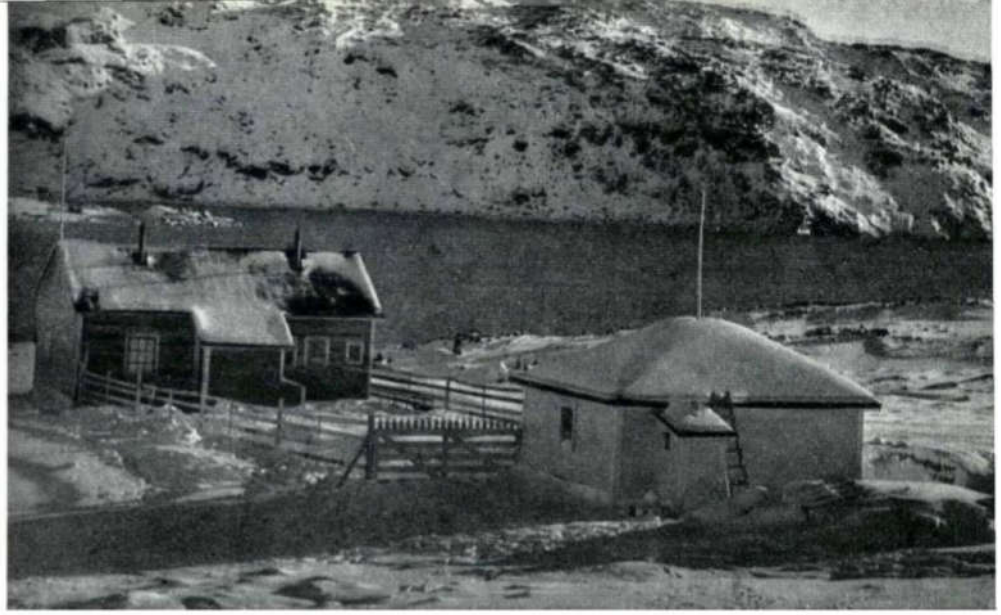
I then asked if I might see the baby. "*Ee! Ee!*" she exclaimed as she took Pudlow from her back and proudly deposited him in my arms. Here is where the nursery rhyme, "The rabbit skin to wrap the baby bunting in" is literally put into practice by the Eskimo mother. The baby was cozily swathed in skins of the arctic hare; the umbilical cord had been cut several inches from his body and tied with a piece of twine from one of our coal sacks. My trained mind immediately turned to the question of infection. I had sterile tape in my medical kit especially for this purpose and toyed with the idea of cutting the cord shorter and retying to circumvent possible trouble. But I soon reconsidered. Had not these primitive little women managed quite successfully for untold generations without outside help? Supposing I interfered with their particular method and something went wrong, I would never forgive myself. With this thought in mind I again wrapped the baby in his rabbit skins and returned him to his adoring mother. In spite of starting life decorated with some sacking twine, Pudlow developed into a vigorous, bright-eyed child.

Childbirth is usually a quick and easy function with these people. My husband relates that occasionally when one or more families move to new hunting grounds a child is born along the trail. When the occasion demands, the dogteam is halted, a few snow blocks are thrown up to form a sheltering wall from the wind and a caribou skin spread behind it. On this the baby is born in the freezing weather. As quickly as possible it is placed in the mother's parka and for the remainder of the day, owing to this rather short-lived ordeal, she will ride in comfort on the sled. During this event very little time is lost; the next morning she will be trudging on foot along the trail, the same as the rest of the company, for on such

Iggalak the village midwife, her teeth worn from chewing sealskin.

Right: The Sopers arctic home, overlooking the sea.

SOPER PHOTOS



major excursions the sleds are piled high with general household goods and hunting equipment.

Roly was enjoying life to the fullest and abounding in good health. The many contagious diseases that southern children are prone to are virtually unknown in this land. He and little Mary were constant companions; he absorbed her language with apparent ease and before long could talk to her in phrases quite unknown to me. This greatly pleased Neve. She was very fond of Roly, as was Nala, a young woman whom I occasionally engaged as a baby sitter.

The two children played together nearly all their waking hours. The short, cold days of winter made it necessary to spend more time indoors, most of which was spent in Mary's home igloo, since our house proved too warm for her. Each fine morning she came to call on Roly, to have her hair combed and face and hands washed. When she entered the house I removed her outer clothing, but soon she was perspiring profusely and begging to go out. On Saturdays she came over for a bath and to have her hair washed and inspected.

Across the front of the Hudson's Bay Company residence a porch had been built enclosed with a low wire netting to keep the dogs out. While we were boarding there Roly spent a good many hours playing in this enclosure. I was at first nervous of the Eskimo dogs; they are always hungry, often ugly, and many times I had visions of him falling and being pounced upon by the wolf-like creatures but I knew that he was safe so long as he did not go beyond the wire. The Eskimo children would gather around and peer at him through the fence, laughing and chattering among themselves. On such occasions I often wondered what they were saying to him, or about him. One day I noticed that they were exchanging caps with him. While I stopped the practice at once, I gave it little thought until a few days later I discovered that he had acquired a bountiful crop of head lice, or pediculosis. The treatment was a close hair cut and some coal oil applied to the scalp, followed by the burning of cap and sweater. Happily, before the real cold weather arrived he had grown another valuable shock of hair.

Pediculosis is rampant amongst these people and very difficult to combat. Their fur sleeping robes, unwashed clothing and bodies are ideal breeding places; while the men would submit to a short haircut, the women strenuously objected and would have no part of it. Because of these conditions and with the determination to protect our own child, I now took over the regular bathing, hair inspection and washing of little Mary. At the same time I supplied Neve with a fine-toothed comb and instructed her in the care of the rest of the family; she was also asked to report should the need arise for medication. This I am convinced she did faithfully, as we personally never had any more trouble with pediculosis.

The days passed with astonishing rapidity. It was now December. The atmosphere for the most part was calm and exceedingly cold. There is nothing more invigorating than pure arctic air and while it lashes out and threatens to freeze one's very lungs with every breath, it is an exhilarating challenge. By donning enough warm clothing a run on skis each day was an unqualified pleasure. The days, too, were at their shortest. The sun never managed to top the high hills to the south and consequently we had little daylight and even less direct sunlight. Presently Christmas was just around the corner.

I wrote to my mother, in a letter that was mailed seven months later: "It is Christmas eve. Outside, the air is very cold and clear and oh! so quiet. Even the dogs are asleep with their noses tucked under their paws and tails. As I stand on the porch I can see the lights of the Hudson's Bay Post and a faint glimmer coming from the soapstone lamps in a number of neighbouring igloos. I think of home so far away with just a bit of nostalgia.

During the winter this snow-house was the home of Moosa (right) and his wife Neve (far right).
BOYER

We shall not be there to join the happy family gatherings as is always the custom at this time of year. I am selfish enough to wonder if you miss us as we most assuredly miss you, and yet the same Christmas star glowing in the heavens above our homes, far to the south, is also shining on the igloos of these simple people and on us. We are not forgotten for here, too, the blessing of the Christ child brings joy to us at Christmas and somehow I am no longer lonely."

Christmas day was a pleasant occasion for all. The minister's wife and I planned the menu for the white community and did all the baking. We met at the Company residence since it was the largest available. I wrote then: "A Christmas dinner in the North is one to be remembered. Since we had no fresh food of any kind we had to use our ingenuity and make the best of the goods on hand. We just had to have a toast to the King and one to our loved ones at home—this with a bottle of Port that had been stashed away for the event. Following the toast there was chicken soup (canned) with cheese straws (home baked). The second course: roast ham (canned) with dressing and applesauce; corn on the cob, potatoes, carrots, turnips and cabbage—all from cans except the potatoes, which were desiccated; sausage rolls, crusty buns and brown bread (home baked). Then for dessert: plum pudding (canned) with hard sauce; mince and pumpkin pie (home baked); Christmas cake brought from home and saved for the occasion; and, lastly, candies and nuts. Who can say we did not have a bountiful Christmas dinner?"

After a program to which everyone contributed we went back to our house where we exchanged and opened our gifts. We had decorated a small paper tree for Roly and it was burdened with toys from "the boys" (the name he had given to the four employees of the Hudson's Bay Company); they had put away gifts for him from the store pending Christmas and these, together with our own contributions, made a very happy and excited little boy who was truly living in the land of Santa Claus.

Because of the vagueness of the Eskimo calendar, the seasons stand out prominently in their lives; the twilight season, and the one of long days. The former occurs in December and January while the latter centres about the month of June.

The twilight period brings to a halt much of the outdoor activity. We managed short runs on the skis during the hour of poor daylight. Eskimos came to the house for treatment and I attended the sick in the village. During this period my husband spent most of his time in the office catching up on his work before another busy season commenced. Our evenings were spent reading, playing cards, or having a game of billiards at the post. Radio at the time was in the ear-phone stage and the reception at Lake Harbour was noticeably poor owing to the mountainous terrain. Consequently, we derived little entertainment from that source.

Nevertheless, the time passed quickly. The days began to lengthen and the village came to life. Dogteams arrived from outlying camps, the owners bringing in their winter's catch of furs. There was great jubilance,

hand-shaking and much drinking of tea with plenty of overdue gossip thrown in for good measure.

The Eskimos became sunburnt to the shade of old leather, except for lighter circles round their eyes where sun glasses had given protection. This gave them a comical owl-like appearance. Without proper glasses the glitter of millions of snow crystals causes snow blindness in a very short time. This is extremely painful and in the days before dark glasses were available the Eskimos devised an ingenious snow goggle that consisted of a strip of bone (or wood) with narrow slits. This gave them adequate, though limited vision and a large degree of protection from the ultra violet light off the snow.

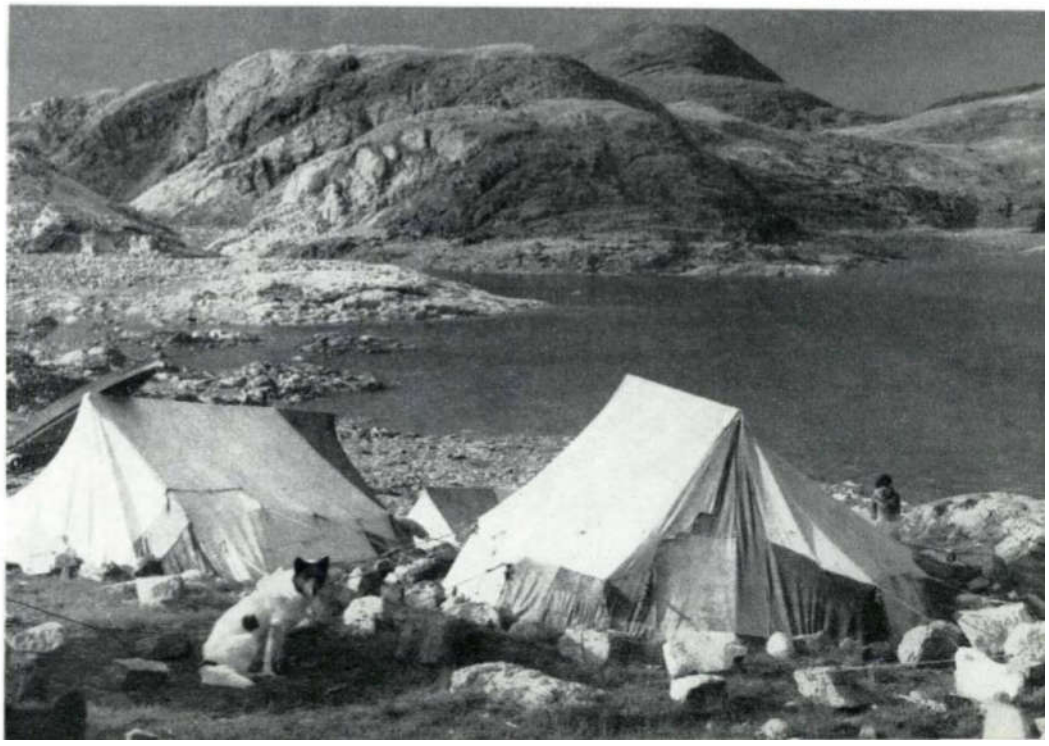
Now that the days were lengthening, though still very cold, I bundled in furs from head to foot and spent many a pleasant hour behind a dogteam. One of my ambitions was to go on a seal hunt. While travelling was still good on the sea-ice I accompanied a family of Eskimos who were out to replenish the larder. It was several miles to the open sea and as we neared the floe-edge a seal was spotted sunning itself on the ice. Stealthily Mutto crept within harpooning distance, made a strike, and the seal immediately flopped into the open water. However, once a good strike is made the harpoon head with a line attached is anchored in the flesh and the seal can be hauled out on the ice.

Mutto then took his hunting knife and bled the animal; as it gushed the children rushed in, scooped up the warm blood in their cupped hands and slurped it down. He then cut off the flippers, handing them to smaller members of the family. They attacked these choice parts with gusto, removing every vestige of meat and leaving nothing but a hand-like skeleton structure of bone and sinew. Smeared with blood from ear to ear and grinning happily with full tummies, they presented a ludicrous sight. Being a nurse and quite accustomed to strange sights and smells, I prided myself on having a strong stomach, but this was more than I could endure; I hastily retreated from the scene and recovered by a snowbank, just a little ashamed that I had put up such a poor showing before my friends.

Once the kill is made—be it seal, walrus, bear or caribou—the hunter can rest on his laurels while his wife takes over. It falls to her lot to thaw and skin the frozen animals, prepare the pelt for the fur trade and the meat for food. She must remove all blubber from the skins and then stretch, dry and soften them before they can be made into clothing, such as jackets and trousers of seal and caribou skins, boots and socks. Formerly the summer tent or *tupik*, was commonly made of seal skins. Besides all this, there is always the daily task of chewing the sealskin boots, preparing food, repairing clothing, while carrying an infant on her back all her waking hours. The men take no part in the care of the small child.

Small arctic daisies were among the many short-lived summer flowers.

MAX BAUER



In the summer the Eskimos at Lake Harbour, as elsewhere, moved into tents.

The woman's life is full and laborious, but she faces it with characteristic cheerfulness.

By mid-May the snow was rapidly melting; bare patches of ground began appearing everywhere and little brooks and waterfalls were once more gurgling merrily on their way to the sea. The horned larks and snow buntings were back and arctic flowers were putting in an appearance. The first of these was the purple saxifrage which I collected on May 24th. I made a collection of flowering and other plants for the National Herbarium in Ottawa. Over one hundred different kinds were found here. It was a never-ending marvel to me that they could bud, bloom and come to maturity in the short Arctic summer.

During our picnics Neve would help me with the language. I was trying hard to get a working knowledge in "pidgin," at least, and I soon learnt that we did not work well in the house. Our rooms were too warm and she had difficulty in concentrating. I made faster progress in her igloo, or out-of-doors. She had endless patience with me. There must have been times when she thought the *ḳabloona nuleunga* (white man's wife) was very stupid but she never allowed it to show. When she finally made me understand her pleasure was so great that she would roll over on the ground in peals of laughter.

When the time came for us to take our departure we left behind us a very sad Eskimo family. The Eskimos love children dearly and our son was no exception. When Neve or Nala came to watch over Roly they did so with the same love and protection that Mary received. When Neve saw our luggage going aboard ship and knew for certain that we were leaving, she came to me with tears in her eyes and explained how well she understood that we must return to our own land, but could we just leave Roly with her and Moosa!

Many winters have come and gone since I left our home at Lake Harbour and, as I look back, it is so often the small incidents that flash into my mind. Picnics on the beach with Neve and the children; the welcoming light of home during the dark days of winter; the Eskimos who came to my door to have a wound dressed or a pill for a tummy-ache; the grumbling of the sea ice with the rise and fall of the tide so near our front door; the brilliant and striking aurora borealis in a cold starlit sky, coupled with the eerie and mournful howling of the husky dogs; the slow approach of spring and the final rapid melting of the snow; the appearance of myriads of tiny blossoms on a sunny slope that had been occupied by a snow bank only a short time before. Above all, the ready laughter and smiling faces of my Eskimo friends. ◆

Lake Harbour Postscript

BY FREDERICA KNIGHT, who spent the last two years there

By 1964 the settlement of Lake Harbour had dwindled. There were about 300 people in the area when the Sopers went there and until a decade ago. Now there are half that number. And this year the white population consisted only of the H B C family and the one-man R.C.M.P. detachment. Many of the Eskimos have moved to Frobisher Bay but for those who have remained life has changed comparatively little. Mission and nursing station have come and gone, but good hunting remains and the people who have stayed, or returned to the area, are independent and self-reliant in the old manner. They enjoy hunting, and in summer all leave for their camps which they much prefer to working in the settlement. An occasional jaunt to populous Frobisher Bay provides a change.

Few are left of those the Sopers knew best. Neve and Moosa died during the mid-forties and their three children have moved to Frobisher Bay. Mutto died about 1937; his son Simonee, who is a civil servant in Frobisher Bay, is widely known, having been chosen to represent his people at the coronation of Queen Elizabeth.

Iggalak, the elderly midwife, died during an influenza epidemic about 1943. She might deservedly be given the title of the Mother of Lake Harbour, as it is now. Her son Akavak has served with the R.C.M.P. as Special Constable since 1949. He is also lay reader for the Anglican Mission. Akavak's eldest son, Eshwaktuk, is caretaker for the buildings used periodically as nursing station or school, including the house Dr Soper built. Another son, Sandy, is the store assistant at the H B C. Akavak's daughter Annie is the local midwife. Iggalak would be proud of her granddaughter's good work. Nala, daughter of Iggalak, who looked after young Roly Soper, died at Frobisher Bay about twelve years ago; she left three children who now have families of their own.

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1. Some of Iggalak's great-grandchildren play with John Knight at Lake Harbour this year.

2. Moosa, Neve, and Pudlow (r. to l.) on a visit to Frobisher Bay shortly before the death of Neve. This photo and Nos. 3 and 6 were lent by Oola who used to live at Moosa's camp.

3. Pudlow, son of Neve and Moosa.

4. Annie followed in the footsteps of her grandmother Iggalak to become local midwife in place of her mother when arthritis made it impossible for Pitsulala, a niece of Moosa, to continue in that capacity.

5. Sandy, grandson of Iggalak, is the store assistant and teaches Sunday school every week.

6. Mary, in black blouse, daughter of Moosa and Neve, who was the playmate of young Roly Soper, and (r.) the daughter of Noah, adopted son of Moosa, at Frobisher Bay a few years ago.

7. The house built by Dr Soper and his Eskimo assistants in 1930 has since served as rectory, nursing station and teacherage. It is still in good condition. Dr Soper is remembered best for his taxidermy. Pitsulala, Annie's mother, says his stuffed birds were marvellously life-like. ◆

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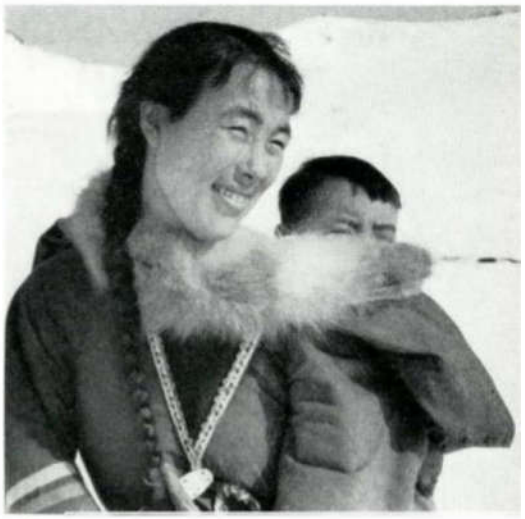

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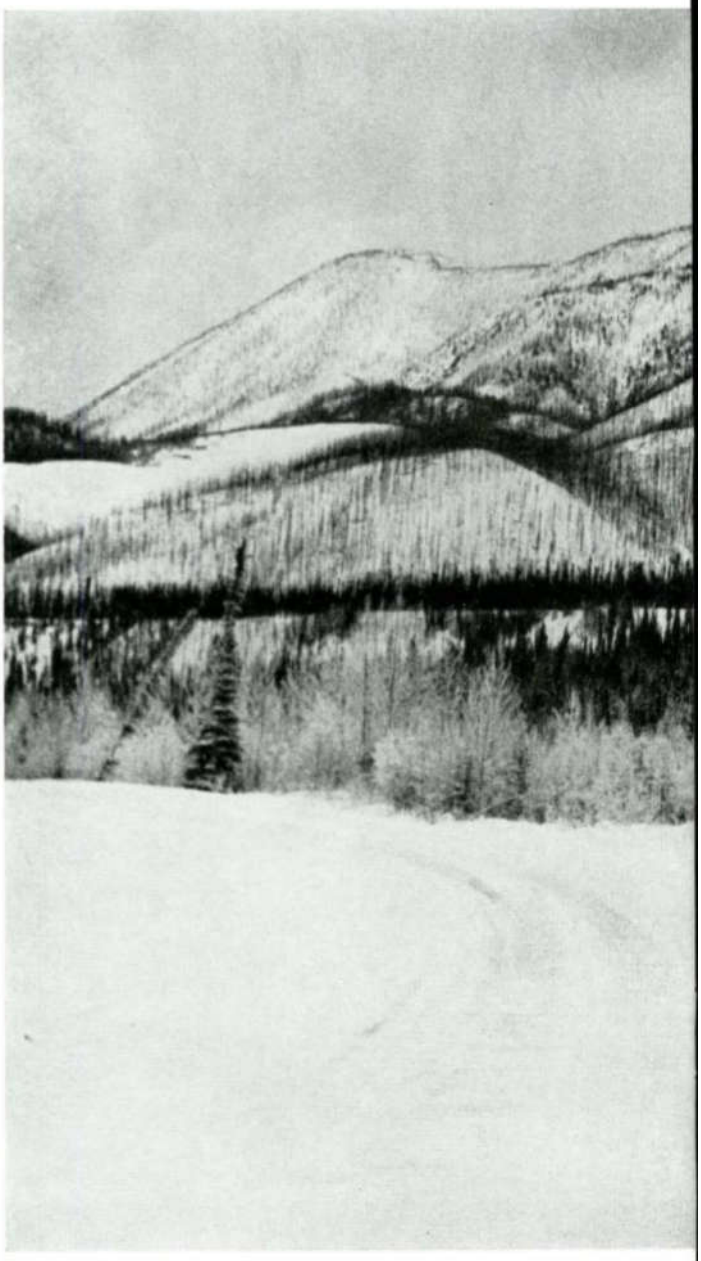
WINTER HIGHWAY

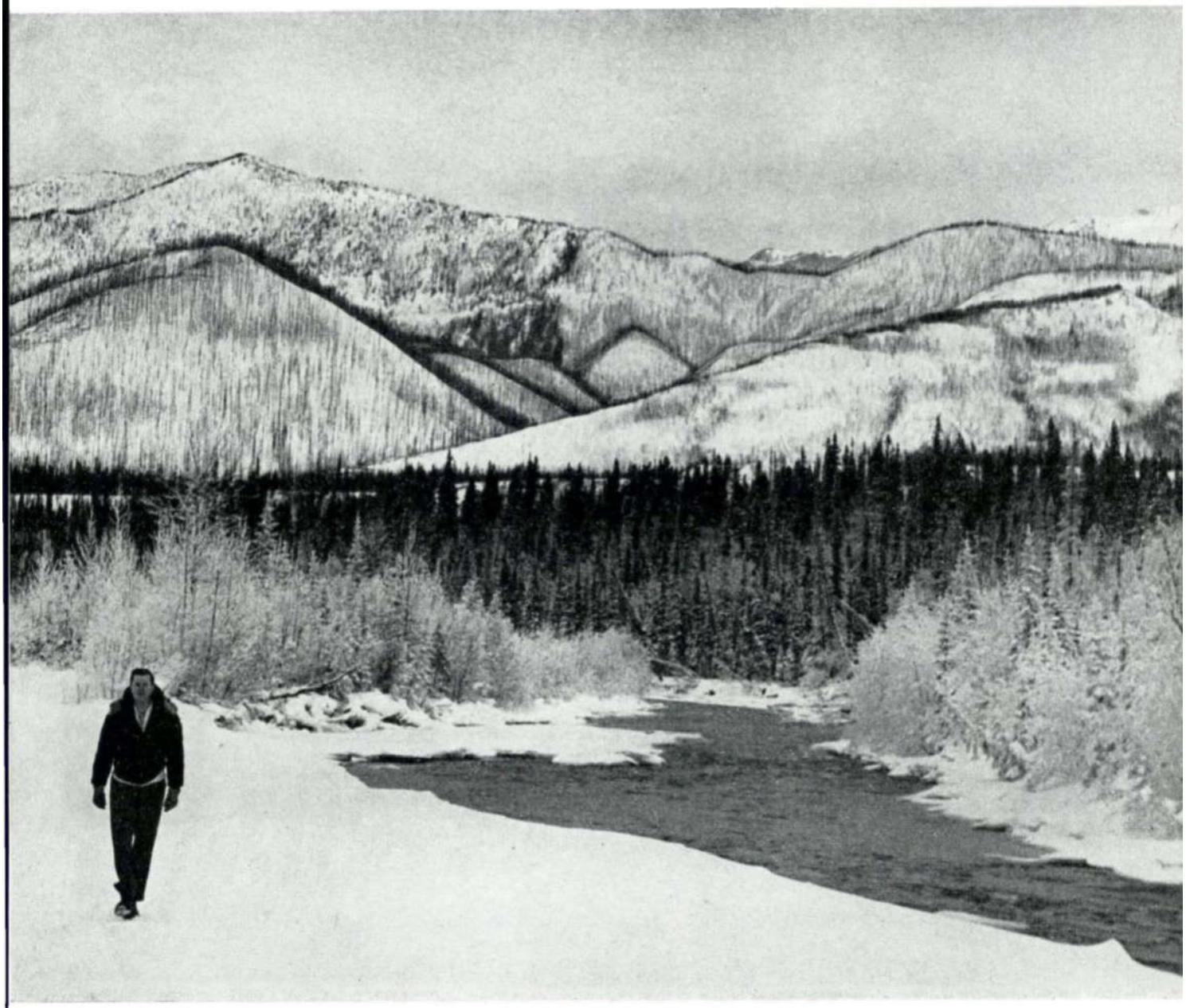
BY DOLLY CONNELLY

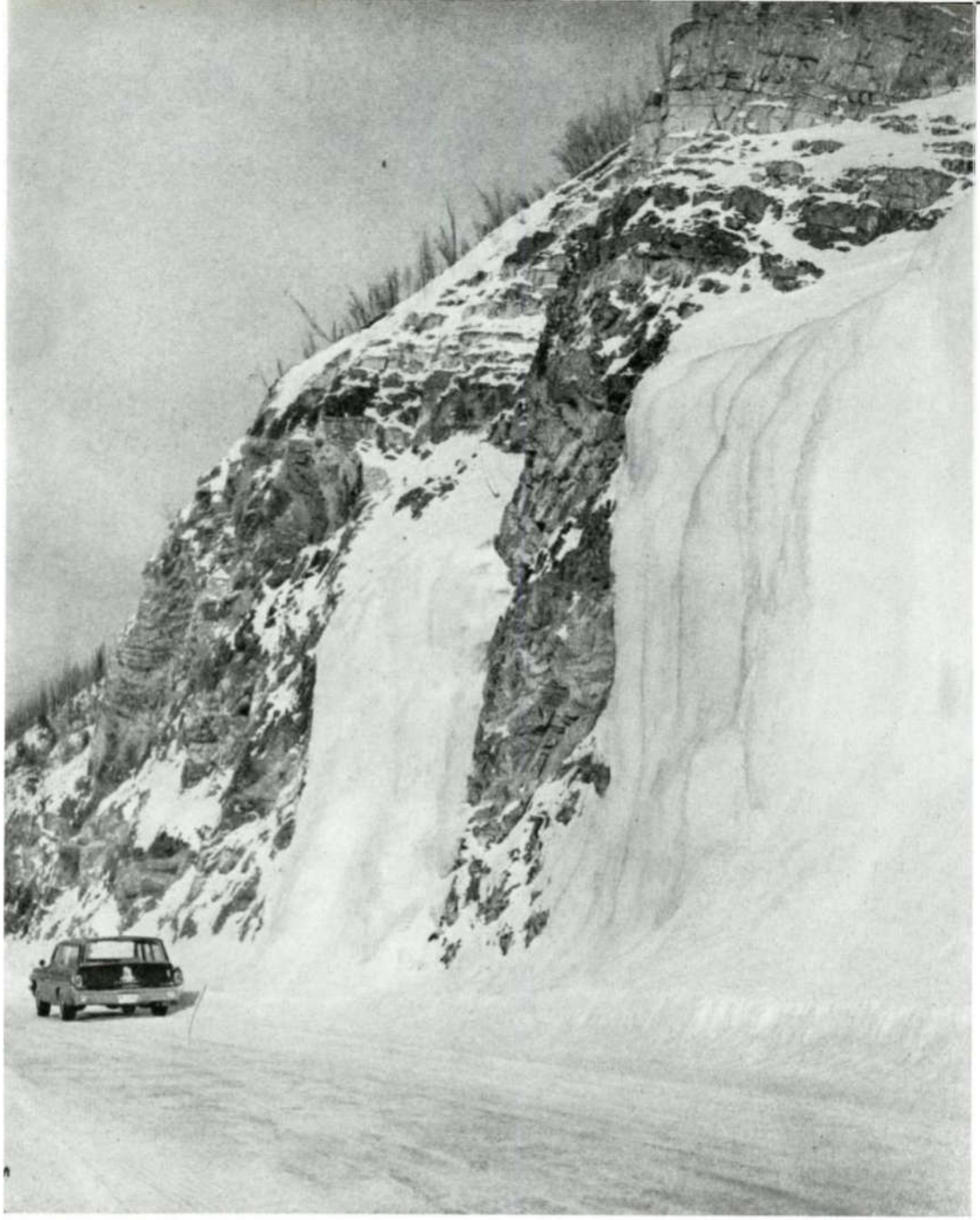
I love the winter road. The far north is most beautiful in the deep temperature lows of mid-winter. Witness to it is this adventure road—the Alaska Highway—in its 1523 mile length from Dawson Creek in British Columbia, through the Yukon Territory, to Fairbanks in the American state of Alaska.

Driving at night, it is good to stop the motor and crunch along the road on foot in the dry sibilant snow. Then stand and listen to the singing silence of absolute isolation. The wilderness winter air is alive as no other air is alive, with a throb too deep to catch, which suddenly mingles with the beat of a heart, overloud in the stillness, and there comes a sense of wonder at the peace of this gleaming world. If the winter road offered no other gift, this would be enough. But to the austere beauty of nature is added the warmth and kindliness of the people living in this little world of The Road.

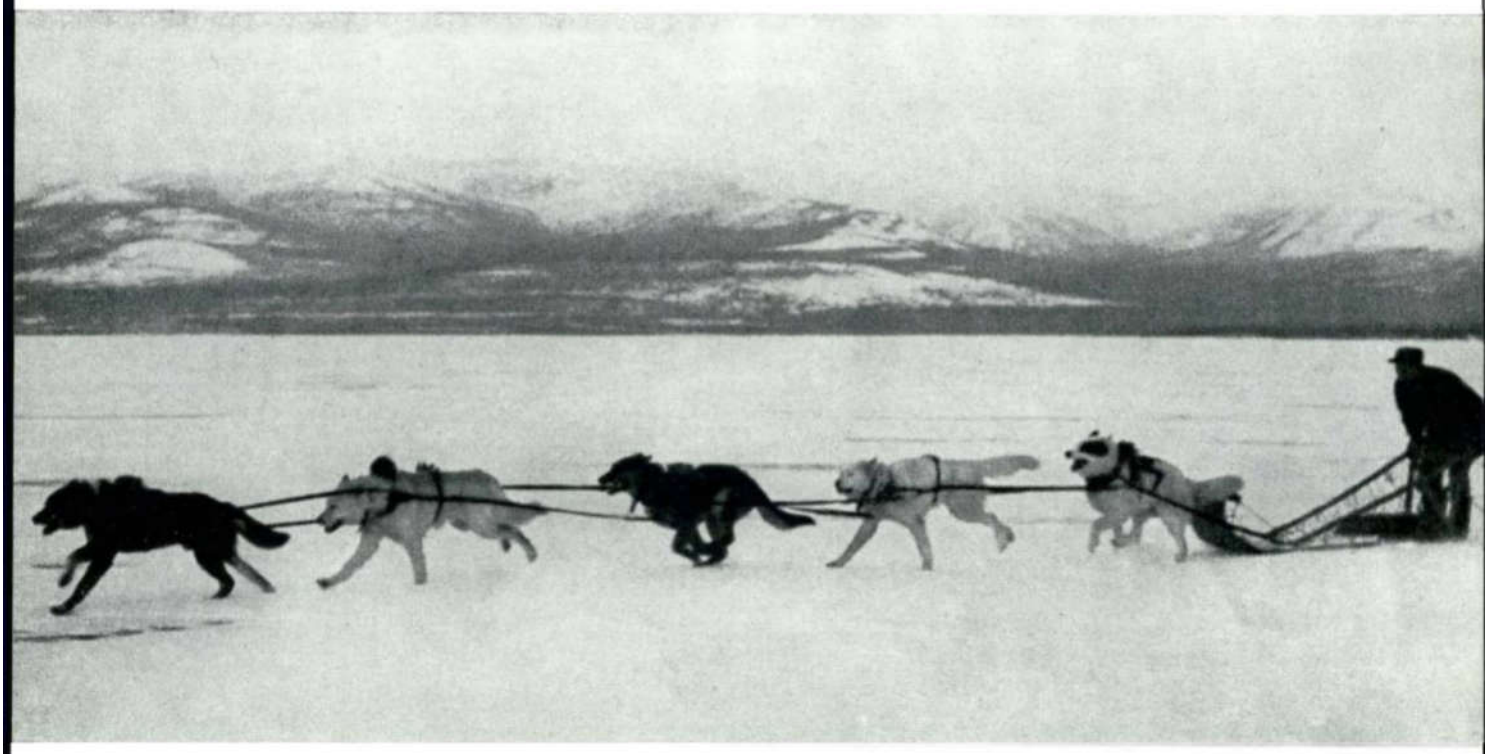
Strange and lovely in winter's snows, mountains outlined in black, near the Liard River, resemble Japanese prints, but in summer the desolation of thousands upon thousands of blackened snags left by forest fire is revealed. Nearby hot springs may create stretches of open water in a fast-frozen river.



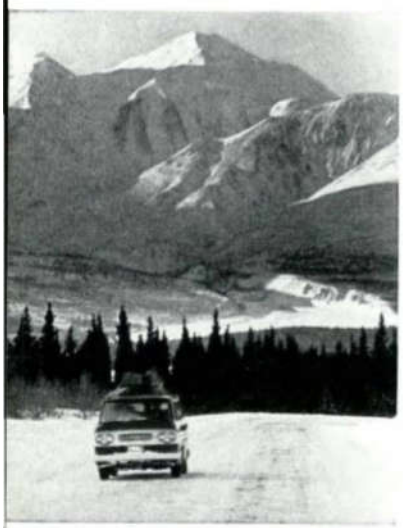


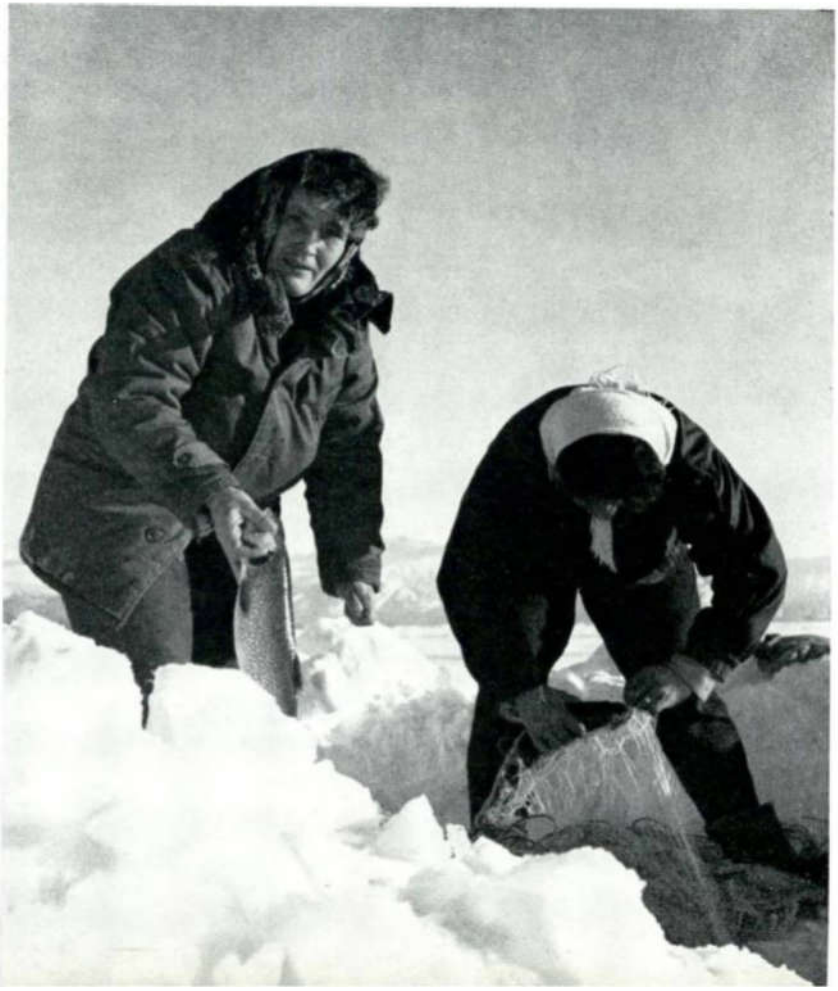


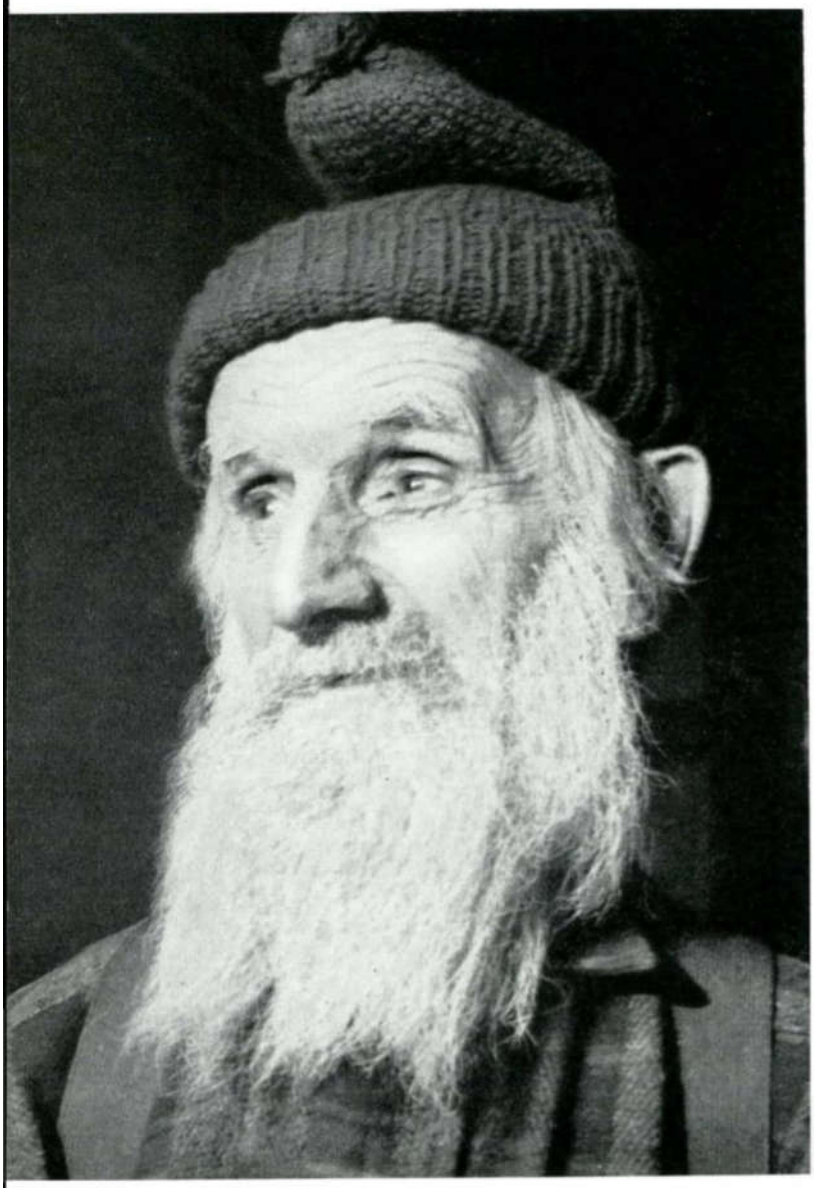
Miniature hanging glaciers descend to Muncho Lake from cliffs along the shore. In summer they are springs emerging from the rock face; in winter they pile up ice many feet thick but the road is kept clear by snow scrapers. Besides pausing to admire the scenery or walk on the crisp snow, one of the pleasures of travelling is to stop and participate in local activities. A dog-team being exercised on a frozen lake in forty below zero cold recalls the early days when this was the way of winter travel.



Fishing through the six feet of ice over Kluane Lake produces lake trout ranging in size from 4 to 36 pounds. Grace Chambers and Babe Southwick, pulling in their net with bare hands (though the photographer suffered frostbite changing a film), are both professional hunting guides.







One of the characters of The Road is Bert Cluett, 87-year-old bartender of the hotel at Burwash Landing. He came to the Yukon in 1900 from Dorset in England when gold was beckoning and much was found in Burwash Creek. He walked the 176 miles each way to Whitehorse and back in all weathers till a few years ago when he fell and broke his hip and lay out in winter cold for a day and a night until his dog brought help. Now he is "a mite stiff" but loquacious, cantankerous, and full of yarns.

The highway is a tone picture of white on white; the smoothly pounded whiteness of the road, white of snow-laden forests, white of looming mountains, and white of pale sky.

Looking like children's playhouses, a cluster of little buildings marks the Indian burial ground at the village of Champagne. The grave houses, which contain dishes and tools and personal possessions, offer a temporary home to the departed spirits and shelter the remains.

Fairbanks, Alaska, northern end of The Road. The hazy winter sun, like the traffic light, seems no more than a dim bulb through the ice fog that is the price of civilization in deep cold.

TOMA'S GOOSE CORRAL

BY DARRELL EAGLES

Photographs by Thomas Barry.
Author and photographer are with the Canadian Wildlife Service.

THE BREAST FEATHERS of over 2,500 wild snow geese flashed startlingly white in the clear arctic sunlight as the birds waddled purposefully along the rocky shore of the Boas River, on Southampton Island to the north of Hudson Bay.

A light breeze from the water ruffled the yellow down of the three-week-old goslings as they scrambled, bright-eyed and shrilly peeping, to keep up with the bigger birds. The gabble of the adults at the front of the flock became more excited when their progress was halted by a wire barrier, but they saw an opening and milled toward it.

The geese could not fly. This was the time of the annual moult, normally in late July or early August, and for two weeks their powerful but feather-poor wings could not lift them into the air.

The geese were not alone. Eskimos—their arms outstretched—kept close behind the birds, herding them along. Ten hours earlier at 4 a.m. the Eskimos had left their camp. It had been a long tiresome day, but the last hour had been different; they knew their goal was near. Topping a gravel ridge they saw the wire pen over the bobbing heads of the loudly complaining geese.

Suddenly impatient, the Eskimos broke into a trot, and moved the birds at a faster pace towards the open end of the key-hole shaped enclosure. Fatigue was borne away on waves of mounting excitement, the strangely

The country round Boas River is so flat that the Eskimos build a cairn as an observation platform to look for the flocks of moulting geese.

These flightless snow and blue geese were herded five miles to the pen for banding.

Toma bands a blue goose while some of his family watch.

nostalgic excitement of an Eskimo goose-hunting technique that was centuries old. Only now wire instead of rocks was used to make the enclosure. The sheer numbers of the geese, the sounds they made, their movements, stirred old memories of other goose hunts and of feasts of plenty after dark times of hunger in the silent winters. The Eskimos called to each other, with happy smiles all around.

Now all the birds were inside the enclosure. Toma, the tallest Eskimo, motioned to his sons and two of them ran to close the opening in the wire, the hoods of the boys' parkas flapping with the urgency and importance of the task.

The geese moved restlessly, seeking an opening, but they need not have felt fear—*Inuit*, the men, were not hunting for food that day. The Eskimos caught the geese one by one and placed a numbered aluminum band round one leg. On some they also put a coloured plastic band round the neck. Occasionally, they found an adult bird that had been banded in a previous year and then Toma recorded the number of the band in a small red notebook marked "Field Notes, Canadian Wildlife Service". The young geese were banded first and put outside the wire enclosure, but they did not stray far from the adults. Then as the adults were banded and released they somehow found their own goslings and headed back in the directions from which the Eskimos had herded them. Some of the geese waddled seven miles back along the shore.

Toma and his sons gathered up the remaining bird-bands and started back to their nearby camp. Toma's wife was hanging up seal meat to dry in the sun when she saw them coming, and by the time they sat down on the lee side of the tent she had the big black pot off the fire and was ladling out the stew for their evening meal.

Hunger gone, Toma lit a battered pipe and leaned back with a sigh. It had been a happy summer. Toma's wife was content because the family had plenty of food and because she sensed Toma's satisfaction. The boys helped their father catch the geese, and their pleasure at being part of such an important undertaking was always evident. They talked about the day's happenings like old hands, but a note of wonder crept into their voices when they speculated about the distant places where, according to the government men, the geese spend their winter.

Toma and his family were from Coral Harbour, 150 miles east of the Boas River banding project, on Southampton Island. They had helped Graham Cooch and Thomas Barry, biologists with the Canadian Wildlife Service, band over 30,000 geese in the last five years, but this was the first time that Toma had handled the banding

Brant geese in the corral, some of them showing leg bands and neck tags put on the previous year.

operation at Boas River himself. In fact, Cooch and Barry were surprised that Toma had finally agreed to the arrangement. They recalled how difficult it had been in the beginning to persuade him to help them at all. However, they understood Toma's deep reluctance to become involved in the white man's enterprises. It was only as Toma's interest in the work grew from year to year that some of his reservations about accepting responsibility for the entire job were put aside. Toma had been reluctant to abandon his familiar ways. He wanted to continue to hunt and trap, work he took pride in. But Toma's scepticism had not extended to refusal to use some of the white man's technology. With the proceeds of his trapping he purchased modern weapons, and with the help of relatives he even bought a power boat. Nor did his independence prevent him from listening to Cooch and Barry with great interest as they explained why banding geese would provide wildlife biologists with useful information.

When banded geese on their southward autumn migration are harvested by hunters, the location of the recoveries yields information on migration routes. And the number of bands recovered gives an indication of the total number of geese taken. The results of aerial and ground surveys of breeding and wintering grounds of geese, and data obtained from banding and kill surveys all help to complete a gigantic jigsaw puzzle that provides a picture of the seasonal variation and long-term population trends. From that picture is calculated the number that can be taken by hunters without endangering the breeding population. Wildlife agencies regulate the size of the harvest by careful setting of the time and duration of hunting seasons and by limiting the number of geese that a hunter may take in one day, and possess in total.

Cooch and Barry were delighted when Toma agreed to continue the banding project at Boas River himself. The bird-bands, chicken wire, and poles were flown to Coral Harbour, and arrangements were made for Toma to be issued with food, gas, and other required supplies by the Hudson's Bay Company. Toma and his family (there were five in the banding crew, besides the children who helped) loaded everything on their boat and two days later they were setting up the goose pens at Boas River.

Toma was very familiar with the banding procedures, but so that certain specific tasks could be carried out, instructions had been translated into syllabics for him.

When Toma and his family returned to Coral Harbour, his banding records were sent by air to Winnipeg. Cooch and Barry were pleased to find that their confidence in Toma's ability was more than justified. Toma and his crew had banded 5,000 blue and snow geese and 1,000 brant. Also, he had recorded valuable recovery data on birds banded in previous years. It was a source of satisfaction to the biologists to know that Eskimos, making use of their own abilities and skills, were participating in the management of a resource important to them.

After their return to Coral Harbour, Toma's stories of the summer's work were listened to eagerly by his friends at many evening gatherings. It is understood that Toma was very diplomatic when filling gaps in his friends' knowledge about waterfowl management.

After their friends had bid them goodnight, Toma would re-light his pipe and sit quietly for awhile watching his wife tidy up. And then slowly, and with obvious pleasure, Toma would tell her again of his plans to expand his trap line with some of the money from the summer's banding work. His wife's contented smile mirrored Toma's feeling of satisfaction.

It had been a good and happy summer. ◆

FOREST OF TOTEMS

By Leslie Drew

news editor of the Prince Rupert Daily News.
All recent photographs by Mrs Drew.

IN DUSTY HAMLETS in the upper Skeena River country of British Columbia, 200 miles inland from Prince Rupert, while Indian children play, wide-eyed wooden faces watch. They crowd around, gazing dispassionately. These are old, deeply-lined faces that look as if they have seen much of life. So they have. They are the last great stands of totem poles; the last groups of carved cedar columns to be found in their original and still-inhabited villages.

NATIONAL MUSEUM

The old village of Kitwancool with its carved posts in the early twenties when Dr Barbeau was making a study of the Gitksan poles.

Numbering about a hundred, most of them in only four small villages, these poles of the Gitksan tribes of the Tsimshian present a strange, impressive sight. Two-thirds of these weather-beaten giants are still upright, though many lean precariously and creak loudly in the wind. Some lean on each other, whispering long-held secrets. The rest lie where they have fallen, their faces gaping at the heavens. All are as different as one man is from another, and marvellous because of the difference. That they are there at all is something of a modern miracle.

Depending on their fortune, the strongly chiselled faces on these poles look solemnly down—or up—to the descendants of the people for whom they were erected, in the villages of Kitwancool, Kitwanga, Kitseguecla, Gitanmaks (now Hazelton), and Kispiox. In two other Gitksan villages, Kisgegas on the Babine River and Kuldo far north on the Skeena, both abandoned long ago, poles have been lost forever.

These seven tribes of the Gitksan (*git* or *kit* translates as "people of"; *Ksan* as "Skeena River") speak a dialect of the Tsimshian language quite different from the dialects spoken on the lower Nass and the lower Skeena Rivers. Their origins have been a subject of enquiry and speculation among ethnologists, and their legends, which include a recurring reference to an ancestral home or "paradise lost"—a place called Dam-la-am, said to have existed on the Skeena and sought to this day both on the ground and from the air by researchers—provide a rich source of material for study.

Part of their story is told on their totem poles. Contrary to the opinions of many missionaries, no religious significance was attached to totem poles. They were erected in tribute to a clan chief or a great occasion, carved by selected artists, and given heraldic symbols of the clan or phratry such as Bear, Frog, Killer-Whale or Raven, or sometimes animals in quasi-human form. As E. L. Keithahn has written in *Monuments in Cedar*, they were not "read" but "recognized". The various figures depicted constituted a system of memory devices which, taken in proper sequence, recalled a story, if the story was known. The figure story began at the top of the pole and read down. A single pole could represent a simple, short episode or a whole series of events in history or legend. They were visible symbols of the histories of the households which were related whenever a pole was erected.

Destiny proved singularly kind to the Gitksan poles. They have fared a lot better than the poles raised by the Haida on the Queen Charlotte Islands or those of the Kwakiutl to the south. For one thing, they were erected in a drier region. In a place like Tanu, one of the many long-deserted totem pole villages on the Queen Charlottes, lush vegetation surrounds poles both standing and fallen. So densely tangled is the growth that one has difficulty distinguishing ancient totem-pole from living tree. While the poles in the Skeena country may bake in summer and crack in sub-zero temperatures in winter, they are not subjected to the same pounding of wind-driven rain. They stand in solitary glory, their feet on green swards. The Indians, by their continuous residence, have at least kept back the jungle.

But even taking these advantages into account, the Gitksan poles have lasted a remarkably long time. It is estimated they have withstood ravages of weather and man for 50 to 100 years. Many have had nothing done to them since the day they were first set against the sky in ceremonial splendour. Already floods have taken a toll. Rampaging waters have cut into river banks and swept poles away. Since a large number are without concrete bases, these poles are also vulnerable to damage by grass fires. Observers wonder just how it is that so many poles are left. Time, and luck, may be running out.

Concerned over the fate of the splendid Gitksan poles, a group of interested people from northern British Columbia towns last year undertook a survey which could result in a program of on-site restoration. Led by Stan Rough of Kitimat, these amateur antiquarians began by studying the poles during a series of field trips. The poles were counted and accurately identified, with the help of sketches and photographs, and the condition of every one was assessed. The findings confirm that the total number of these great carved cedar columns has not changed much in the last forty years. However, a comparison of numbers standing and fallen with statistics from earlier government investigations, shows a mounting casualty rate.

When Marius Barbeau, eminent ethnologist and leading chronicler of Tsimshian myths, made his comprehensive studies of Gitksan poles in the 1920s, he found more than a hundred poles, but "not all standing". Provincial anthropologist Wilson Duff in 1952 again found more than a hundred in existence, of which eighty-two were standing, though not all in their original locations. He sounded a dismal note with these words ". . . in their condition the poles show the destructive effects of time. Twenty-one have fallen and lie on the ground in various stages of decay; seven more seen by Barbeau have disappeared without trace. On the constructive side, twenty-eight poles have undergone restoration and seventeen new poles have been carved and raised. In quality as in condition, the balance-sheet shows a loss. The decline of the carvers' art in this region, which,

Kispiox as it looked in 1952. RICHARD HARRINGTON

according to Barbeau, set in with the increased use of paint a decade or so before the turn of the century, has continued to the present day. It is an almost unvarying rule that the oldest poles are aesthetically the finest, and that in comparison the new poles and restorations have become increasingly poorer."*

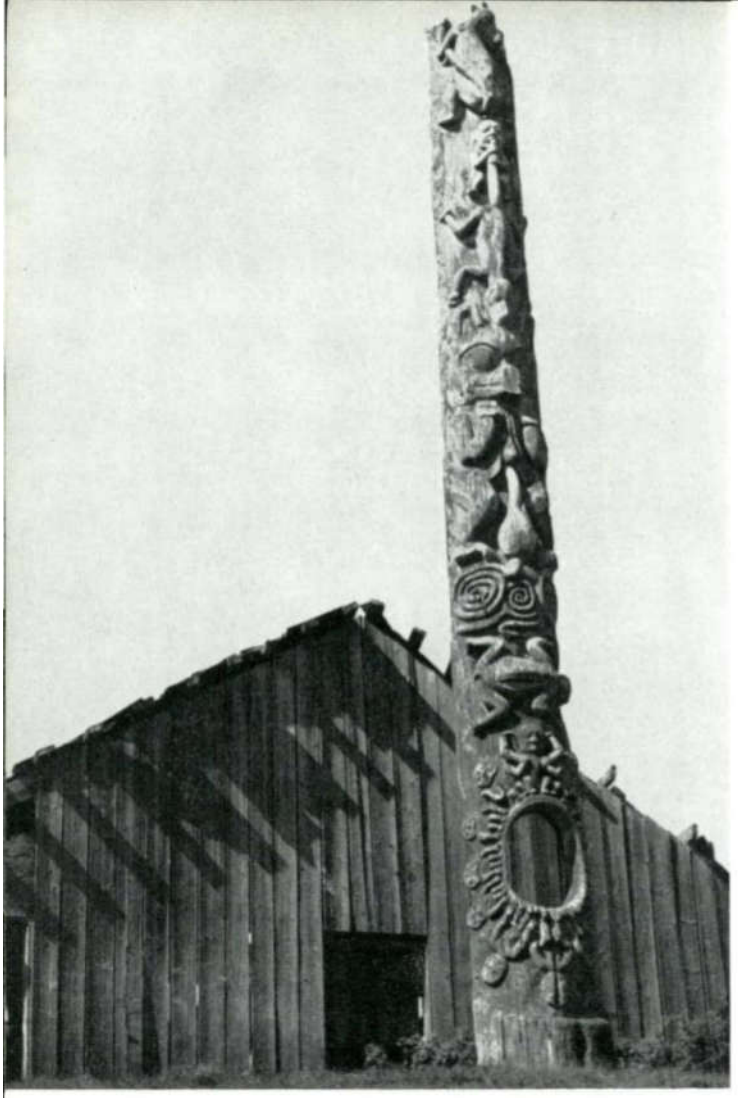
Apparently in the twelve years since Wilson Duff's study, twenty more poles have crashed to the ground. A summary of the count made last year showed that in Kitseguecla there were 16 poles standing, 7 fallen; in Kispiox 10 standing, 8 fallen; in Kitwancool 19 standing, 13 fallen; in Kitwanga 11 standing, 8 fallen, in Hazelton 6 standing, 1 fallen. The total number of poles was 99 of which 37 had fallen. Of the 62 poles still upright almost all suffered from weather, plant, insect, and bird (woodpecker) damage. The most serious problem common to all was base rot, where a pole meets the ground.

Liberal estimates place the number of poles in sufficiently sound condition to warrant the expense and labour of restoration at between fifty and sixty. The suggested plan is that, with the consent of their Indian owners, the poles should be taken down, treated with a wood preservative, and re-erected on concrete bases on their present sites. Casts would be made of poles that have deteriorated too badly to be worth saving.

Kitwancool has both the largest number of poles and the oldest, hence the finest. The oldest of its poles date to the 1870s and show the most complicated and skilful workmanship. This village with the melodious name is unusual in many respects. Tucked up a tributary of the Skeena River, Kitwancool is away from the mainstream of traffic and twentieth century ways. Its people are noted for a forthright, independent spirit, and on occasion show resentment at intrusion by whites. It lay on the famous Grease Trail from the Skeena to the Nass, important in earlier times, and must have been a prosperous community.

In any case, Kitwancool was apparently the first of the Gitksan villages to adopt the art. The poles, anywhere from 30 to 60 feet high, were usually placed in front of the houses, overlooking river or stream. According to Barbeau, the upper Skeena totem poles were produced

*Gitksan Totem Poles, 1952, Anthropology in British Columbia, No. 3.



The richly carved Hole-through-the-Sky pole at Kitwancool, a house-front pole erected 1860-80, as it was in the twenties.

by more than thirty local carvers and thirteen outsiders from the Nass, lower Skeena and Bulkley areas. Barbeau rates the poles of Kispiox and Kitwanga as being next in age and value. The Kispiox poles today are extremely weather-worn, contrasting markedly in appearance with those of Kitwanga, which have the most paint. In 1925-26 Kitwanga was the scene of a restoration program undertaken jointly by the Canadian government and Canadian National Railways. Seventeen totem poles and two totem figures were taken down, treated, painted, and replaced, generally in new locations, on sturdy mountings. The Indians themselves restored eleven poles in other villages. But for the most part the story is one of neglect. A pole teeters for a time, topples in a windstorm, and finally is left to rot.

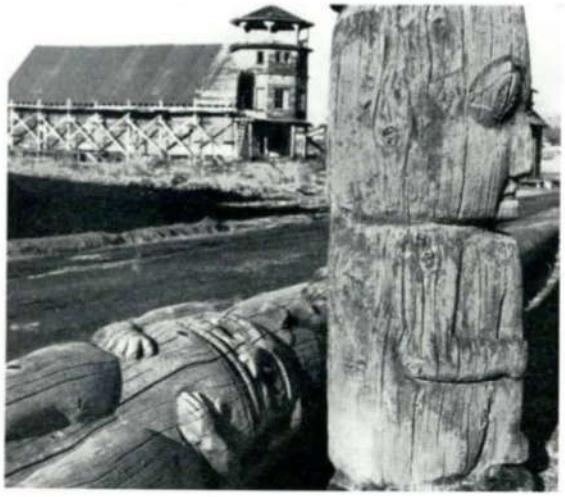
White people, however well-intentioned and eager to save these relics of a vanishing art, have no idea of the difficulties that will confront them. Money is needed and this year the provincial government has promised twenty thousand dollars towards preserving the poles provided an equal amount is raised. But money and energy are not enough. They will have to find their way through a maze of native customs as bewildering and complicated as the designs on the oldest totem poles. The work of restoration begins to pale beside the task of satisfying native wishes.

Before any pole is touched, the owner must give consent. This is quite understandable, since the poles were monuments and evidence of social standing. In spite of this, many poles have been carried off in years past to decorate parks and museums in distant cities. Tradition also decrees that feasts and ceremonies attend the restoring of poles, as was always the custom on the erection of poles. The owner must foot the bill, which can run as high as $1,500 for one pole. The expense could devolve on someone totally unable to afford the necessary show of prestige.

No one takes lightly these rules of conduct and social organization. Even a casual visitor to any of the Gitksan villages soon learns the truth of Wilson Duff's statement that "the rules regarding exogamy and phratry affiliation are still inflexibly observed". A conversation that took place during the first of last year's three field trips can provide an illustration. Two or three members of the study team stood talking to a young Kispiox woman. Broad-faced, pleasant looking, she spoke excellent English. She was dressed in a white blouse and dark wool skirt, at which a brown-eyed toddler by her side tugged shyly. The adults were contemplating a very badly decayed life-size bear carving lying in a field near the grand row of Kispiox totem poles. Someone asked the woman: "What are you?" "I'm a Frog," she replied

Grizzly bear grave marker, almost life size, with small bear on its head, photographed recently at Kitwancool shows the expressive carving in the wooden monuments.

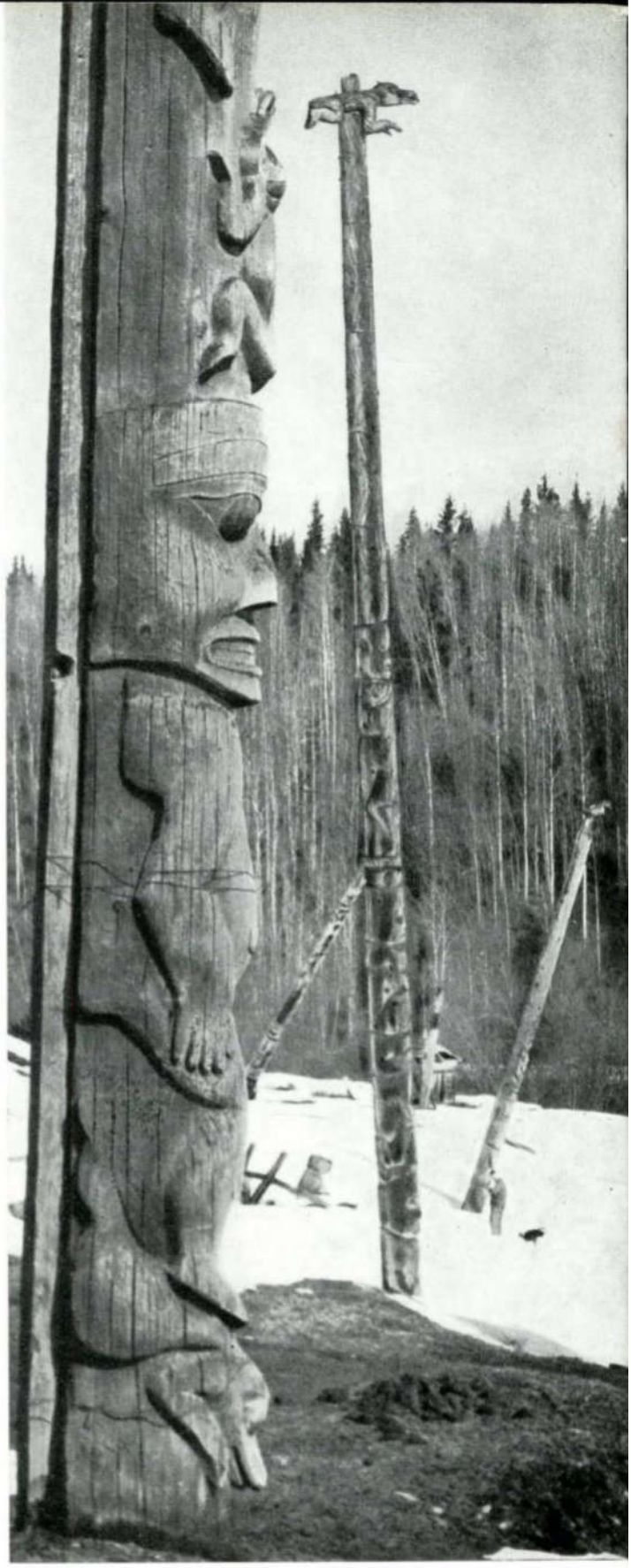
A row of restored poles at Kitwanga. On the left is the Dog-salmon pole originally put up in the 1850s. Below: A fallen pole at Kitwancool lies in the snow.



Top: Grizzly-bear-of-the-water carving atop a woodpile at Kitseguecla. Above: Standing and fallen poles at Kispiox. Flooding destroyed many posts here in 1936.

Tottering monuments at Kitwancool where the people have strongly resented white intrusion and, below, a pole which shows decay at a critical point, in front of the Crest House. It will be seen that the building has been changed since the earlier picture of Hole-through-the-Sky on page 52.

At bottom: Mrs William Wilson, a member of the Frog clan at Kispiox, who is in favour of her family's pole being preserved.



without the slightest hesitation. "And your husband?" "He's a Fireweed."

The names have meaning to those who know the phratries within Gitksan villages, their ranking and the whole elaborate system of rights and positions from the chiefs down. She left no doubt as to how real and firmly entrenched are her people's traditions.

Kispiox probably holds out the greatest encouragement for those who would preserve the Gitksan poles. Not only has permission been given for its poles to be restored, but the owners have agreed to dispense with the traditional costly feasting. Chief councillors, hereditary chiefs, and pole owners in the other villages are still deliberating.

A decision will have to be made soon in the case of some brand new totem poles in Kitwancool. Carved at Victoria by the late Chief Mungo Martin and his young kinsman Henry Hunt, these three poles (and a fourth completed last year by Hunt after Martin's death) are copies made to replace poles removed by agreement with the Kitwancool in 1958 by Provincial Museum authorities for permanent preservation in the capital. The original poles for which they were exchanged were the first ever to be removed from the village.

The agreement was an unusual one. Besides asking for a new and exact copy to be erected in the village for each old pole removed, the people of Kitwancool stipulated that their histories, territories, and laws be recorded and published, "and used in the highest educational institutions of the province to teach future generations of white and native students about Kitwancool". The Provincial Museum carried out the terms of the agreement to the letter.

Three of the handsome new poles have been lying in Kitwancool's bleak Crest House for several years. When they will be erected, and whether with full ceremonies, are questions the Kitwancool will decide when the fourth pole arrives this year.

If the proud Kitwancool can modify their customs, without loss of face to individual pole owners, so that all the poles can be erected at the same time by modern methods at a reasonable or nominal cost, the restoration of the old poles here and in the other villages becomes a distinct possibility. ◆

Three poles carved by Mungo Martin, replicas of ones removed to the Provincial Museum for preservation, lie in the Crest House at Kitwancool waiting to be erected. The upper part of two Wolf clan totem poles can be seen. The bird at the top right, the Giant Woodpecker, is detached and will be set upright at the top of this pole.

NORTHERN BOOKS

ESKIMO ADMINISTRATION II: CANADA

By Diamond Jenness. Arctic Institute of North America, Montreal, 1964. Technical Paper No. 14. 186 pages. Members $3.00 Non-members $4.00.

Reviewed by Douglas Leechman

This is the second part of what was first intended to be a trilogy, but which may now turn out to be a four part series. The first of these, dealing with Eskimo administration in Alaska (*The Beaver*, Spring 1963) appeared as *Technical Paper* No. 10 of the Arctic Institute of North America in 1962 and this, *Technical Paper* No. 14, is a worthy successor. The two works follow an almost parallel course and the problems confronting officials in Alaska and in Canada resemble each other closely. Jenness traces the course of events in detail.

As has happened so often throughout the world, contact of a primitive culture with the "white man", probably the most dangerous predatory animal that ever lived, was followed by a total breakdown of that culture and the moral and physical deterioration of the people who, for many hundreds of years, had lived in better circumstances by far than most of them do today. But there is no way back. Nothing can possibly undo what has been done. The old way of life is no more, and no new way, no satisfactory new way, has yet been found.

Jenness foresaw all this. Not in prophetic detail, of course, but in its main outlines. In his *People of the Twilight* (1928) he wrote: "Whither will it all lead? Fifty years ago the cyclone swept over the Eskimos of the Mackenzie River delta, and of its two thousand inhabitants a scant two hundred survive. Fifty years earlier it struck Baffin Island with a similar result. Will history, fifty years hence, record the same fate for this twilight land where for two years we carried on our mission? Where we the harbingers of a brighter dawn, or only messengers of ill-omen, portending disaster?" Well, nearly forty of those fifty years have passed and already the answer may be read quite clearly. They were, as he feared, messengers of ill-omen, portending disaster.

The history of Eskimo administration in Canada is indeed a sadly tangled skein of red tape. When first the Eskimo and the European met there was no problem; they traded a little and fought a little, but in the year 1501 the Eskimos got to know the white man somewhat better for then it was that Gasparo Cortereale kidnapped fifty-seven Eskimos to sell as slaves. It did him little good for he, his ship, his crew, and his slaves all perished, never to be heard of again.

Early explorers penetrated deeper into the land of the Eskimos but their contacts were comparatively brief and did little to disturb the economy of the natives, in fact the steel knives and other goods they gave them were of great value and eagerly sought after. It was not until the whalers began to winter in the Arctic that serious trouble developed, with alcohol, disease, and immorality attacking the Eskimo customs and ethics. Soon the white invasion was in full swing with traders, missionaries, explorers, prospectors, and police all playing their parts.

One thing was clear to the authorities in Ottawa. It was not only that something would have to be done about the Eskimo, but that something would have to be done to show that Canada, claiming the Arctic Archipelago as hers, was actually in control and occupation of this somewhat less than attractive part of the earth's surface. A few men, more farseeing than others, notably Stefansson, predicted that the Arctic would be of immense importance in years to come and now it is clear that these men were right. Police detachments were established, regular patrols instituted, and trading posts often sprang up near the police posts. Sometimes the trading post came first.

Now, desiring the white trader's goods, the Eskimos turned their attention to trapping the white fox, an animal they had taken but little interest in hitherto. Gradually they abandoned the old ways of life, becoming ever more dependent on the trader for food, clothing, traps, weapons, and all the other things he had to offer. Young men grew up knowing nothing of the old skills in hunting, in kayak construction, in the building of a snow house. Some of them grew rich with fox skins at forty dollars each or more and muskrats at three dollars in the Mackenzie delta where they had once been a few cents each.

Then the bottom dropped out of the fur market and fox skins might bring three dollars or even less. Men could not live on that. Now they themselves were in a trap. The old hunting economy was gone, the new trapping economy was about to disappear, and The People hung about the posts living on hand-outs, family allowances, and, for a lucky few, jobs working for the white men in the posts, whether police or trader's, the DEW Line, the meteorological stations, and so on. Disease was rampant, tuberculosis prevalent, starvation imminent in some places. And yet, in spite of it all, the Eskimos were increasing in numbers and something had to be done to provide them with a way of making a living. Most of them had no education, little experience in the manual arts though excellent mechanics by nature; there were just no jobs to be had and, Jenness points out, 2,500 jobs are needed for them and at once. All this he points out with confirmation at every point from official and authoritative documents. There seems to be no solution and the remedial measures that Jenness does suggest seem to me, at any rate, to be clearly *faute de mieux*.

It is an excellent piece of work, well written, well researched, and well thought out. It is easily the most important document in its field and one looks forward to the volumes to follow with pleasurable anticipation.

Dr Leechman, formerly head of the division of anthropology of the National Museum of Canada is the author of many publications on the native people of Canada.

FURS BY ASTOR

By John Upton Terrell. William Morrow, New York; George J. McLeod Ltd., Toronto, 1963. 490 pages, index. $8.75.

Reviewed by E. E. Rich

There has never been any mystery about the achievements of John Jacob Astor. The young immigrant who eventually walked ashore across the ice to Baltimore, after spending a couple of months aboard his winter-bound ship in the Roads because he was at least sure of his food there,

came to the United States within a year of the achievement of Independence—and found it the Land of Opportunity; a land also on which he set his mark. Astor, beginning with his small capital of about five guineas' worth of flutes and music, and building up the greatest fortune of his day by speculation in New York land, by shipping, international trade, and above all by the creation of a fur-trade empire, has long been the prototype immigrant. His achievements, especially in organizing the American Fur Company and in bringing the Pacific Coast within the range of American ambitions, have been the subject of much scholarly writing, and Astor has been incorporated into American history both as a business man and as a prime mover in the westwards expansion of the United States. As the dust-jacket proclaims, the Astor story is in itself a major epic.

Documents, though scattered, have never been scarce or difficult of access; and from Washington Irving on, through Chittenden, Porter and Phillips, Astor has been fortunate in the writers who have dealt with him. There is little to add to the story and, indeed, it does not seem that Mr Terrell would claim to bring new facts to light. His book is based on a wide study of the material, and although it is notable that the bibliographical note makes no reference to works in French, that note is fair and reassuring. Mr Terrell there admits that virtually every scrap of Astoriana is listed in Porter's *John Jacob Astor, Business Man*. But he finds that work badly organized and often confusing. This present work, therefore, should above all add to the clarity of the story; and by close attention to chronology and by using an unpretentious racy style which often pushes informality to the point of inconsequence, it certainly achieves a readable, interesting, and acceptable version of the story.

This presentation of the Astor story to the general reader without the paraphernalia of scholarship should ensure a good reception for the book. But the reader with any knowledge of the fur trade will find himself constantly asking "Where does this come from?" Surmise and imagination have played a considerable and unacknowledged part. For example, we are told that on Astor's first voyage to America, in 1783-84, "Several of the first-class passengers were officers of the Governor and Company of Adventurers of England trading into Hudson's Bay". By an odd chance the Company's officers at Moose had indeed discussed the possibility of sending their reports to England via New York in September 1783. But they did not do so because the Company's ship eventually arrived at their post. The officers who went out to the Bay in that year certainly did not travel via the United States and the whole episode, as described, must be pure myth. The very idea of getting to Hudson Bay by way of the United States at that date is fantasy, as is the notion that at the end of the eighteenth century "The governors of the Hudson's Bay Company in England were men of great influence in British trade policy" (p. 98). There was, in any case, but one "governor", and he would have felt highly flattered by this description.

As the part played by surmise becomes clear, this must be taken into account in assessing the second contribution of Mr Terrell's work. For he sets out not only to write a readable narrative; he also makes a genuine effort to bring John Jacob to life, to turn him from a myth into a real person. In this he is not so successful as in his narrative, and it is unlikely that he should be, for a balanced judgment on a complex character demands different methods and different gifts from the production of a clear and coherent narrative. This perhaps is the reason why previous efforts at a biography of Astor have always left the career and the achievement clear (according to the capacity of the author), the character and motivation uncertain.

In this book a forthright acceptance of simple and uncomplicated explanations defeats its own purpose and makes Astor less understandable, not more so. On the one hand we are told (p. 87) that Astor worked only for himself and his children; that he was a bigot, possessing a great egotism (surely it should have been an "egoism"), to whom money was not desirable as a means to the satisfaction of other desires but as an end in itself. Yet we are also told that "Astor wanted to found a new nation, to be named Astoria, and he wanted to be its king" (p. 240). Not only are the two statements difficult to reconcile, but neither of them can be fully accepted in itself. Nor do they lead to a real understanding of the man who saw the vision of a world trade-system which would link the manufacturing centres of Europe with the eastern seaboard of north America, and so with shipping and the fur trade which, in their turn, would link up with the Pacific coast of America and would bring the exotic trade of the Far East into this world pattern. Like most of Astor's visions, this was a vision marked both by a great simplicity in plan and by a devious complexity in fulfilment; and Astor the man will probably remain something of a myth until he finds a biographer who can both master the narrative of his many-sided career and also deal with his lineage not only with the scorn for aristocratic pretensions which Mr Terrell shows but with a deep understanding of the mind and background of an eighteenth-century European peasant. Devious and complicated though his negotiations might be, Astor's ideas and his desires were always simple; the qualities and the defects of this business man were those of a shrewd and industrious peasant. The vast scale on which he worked tends to obscure the simplicity of Astor's desires, as the tortuous double-dealing of his methods obscures the directness of his aims. Astor was certainly not a simple character in the ordinary sense of the word; nor is a peasant. But understanding becomes more difficult when the peasant, because of his success, is approached as a tycoon. Though imagination has played a greater part in Mr Terrell's portrayal of Astor than would readily appear, the man himself remains an enigma.

Professor Rich, Master of St Catharine's College, Cambridge, and author of the history of the Hudson's Bay Company, edited the first twenty-two volumes of the Hudson's Bay Record Society.

PEACE RIVER CHRONICLES

Selected and edited by Gordon E. Bowes. Prescott Publishing Co., Box 3166, Vancouver 3, B.C. 557 pages, bibliography, index, illus. $6.50.

Reviewed by Clarence Tillenius

To attempt in short space to review adequately a book like *Peace River Chronicles* is a manifest impossibility.

The vast Peace River country, rich in fur and a monopoly of the fur trade for centuries, was in 1912 thrown open to homesteaders.

Free Land! The magic words found response in the hearts of thousands of settlers; from Europe, from the U.S., from all over Canada they came; each intent to prove up on 160 acres and make his fortune.

Fur, gold, petroleum: the country possessing these may be assured a

turbulent history when white men learn of it. The Peace River country had all three.

And in these "Chronicles" we have that history. Here are 81 separate articles, eye witnesses and participants unfolding stories that will have the reader on the edge of his chair more than once.

Here is Sir Alexander Mackenzie's own account of the discovery of the canyon in 1793; Simon Fraser telling of the canoe journey from the Portage to Finlay Forks, 1806; Samuel Black on the discovery of Deserter's Canyon in 1824; these and other equally fascinating stories make up the first part of the book up to 1848.

A second section, 1861 to 1906, entitled "Gold-seekers, travellers, missionaries and surveyors" is, if anything, even richer fare than the first. I mention one episode as an example: Warburton Pike's attempt to reach McLeod's Lake from Hudson's Hope. Winter had set in; the party then lost their way; a tale of freezing, starvation, and misery which may well stand as representative of much of the travel that opened the mountains to us.

The third section, from 1907 to 1930, the coming of the settlers, is also interesting and colourful, and the final section, titled "The Region comes into its own" spans the period from 1931 to 1962 and the beginning of the Peace River Power project.

Even if history as such held no appeal for a reader, the sheer drama of these stories would hold anyone.

Compiling and editing was the work of Gordon Bowes, of Vancouver. Mr Bowes is President of the Vancouver Historical Society and member of the Council of the B.C. Historical Association. Not historians only, but all who read it, will thank Mr Bowes for having produced this fine volume.

Artist and naturalist, his keen study of outdoor life has taken Clarence Tillenius to all parts of Canada, by all methods of travel.

THE LEMMING YEAR

By Walter Marsden. Chatto and Windus, London, 1964, 30s. Clarke Irwin, Toronto. 252 pp., illus. $7.25.

Reviewed by William O. Pruitt, Jr.

No animals in the North, with the possible exception of wolverines, have been the subject of more legends and old wives' tales than lemmings. Even today, relatively few biologists, and fewer laymen, are sufficiently familiar with not only the literature but also the creatures in nature to be able to sift fact from fancy. Thus *The Lemming Year* is a welcome addition to any northern library. Mr Marsden traces the history of our knowledge (and legends) of the two genera of lemmings, *Dicrostonyx* and *Lemmus*, from the Old Norse sagas to the writings of Olaus Magnus and other Scandinavian churchmen on into modern times. He covers the modern scientific literature exceptionally well (albeit uncritically) and discusses the results of studies in Norway, Sweden, Finland, the U.S.S.R., Canada, and Alaska. Mr Marsden is one of those rare people who can rephrase a dry-as-dust technical account into something sparkling and alive.

Some professional biologists may quibble about his uncritical acceptance of recent taxonomic "lumping" and his impartial quotations from recent publications that have a wide variation in reliability. But *The Lemming Year* is a valuable contribution to everyone's understanding and appreciation of these animals which are so important in the natural economy of the North. Would that every northern animal had a Boswell as articulate and knowledgeable as Mr Marsden!

Dr Pruitt who is a specialist in arctic wildlife is Visiting Associate Professor of Zoology at the University of Oklahoma.

FAR PASTURES

By R. M. Patterson. Gray's Publishing Canada, Sidney, B.C. 290 pages, illus. $6.50.

Reviewed by Clarence Tillenius

When one opens a book and finds the author beginning: "Some reviewers may say this book should never have been written. To them I can truthfully reply that I never intended to write it. It was an accident, and nothing but."—one may be forgiven a certain lessening of confidence.

Mr Patterson's book is better than that, as anyone who had read his previous *Dangerous River* might have expected.

Yet in some ways the reader may be disappointed. Mr Patterson writes so well: his ability to evoke situation and mood is never in question; but I put the book down with an odd feeling of having had the expectation of finding something that never quite materialized.

What Mr Patterson does give is a collection of anecdotes—superbly well told, many of them—of travel and adventure in the West and North West during the halcyon days following the First World War.

In these days of efficiency and organization, can anyone old enough to remember the light-hearted camaraderie of homestead and trapline days read without nostalgia such stories as the midnight horse race with Jean Arnault; the "Winged Hats" from Little Prairie arguing against the road to Peace River town; the "moochigans" of Battle River?

Many a crusty old rancher will shed a sentimental tear over Patterson's recreation of the vanished days when the West was wild and Kipling the voice of Empire. The photographic illustrations are excellent and ably substantiate Patterson's word-pictures of the gay and carefree times at the Buffalo Head Ranch.

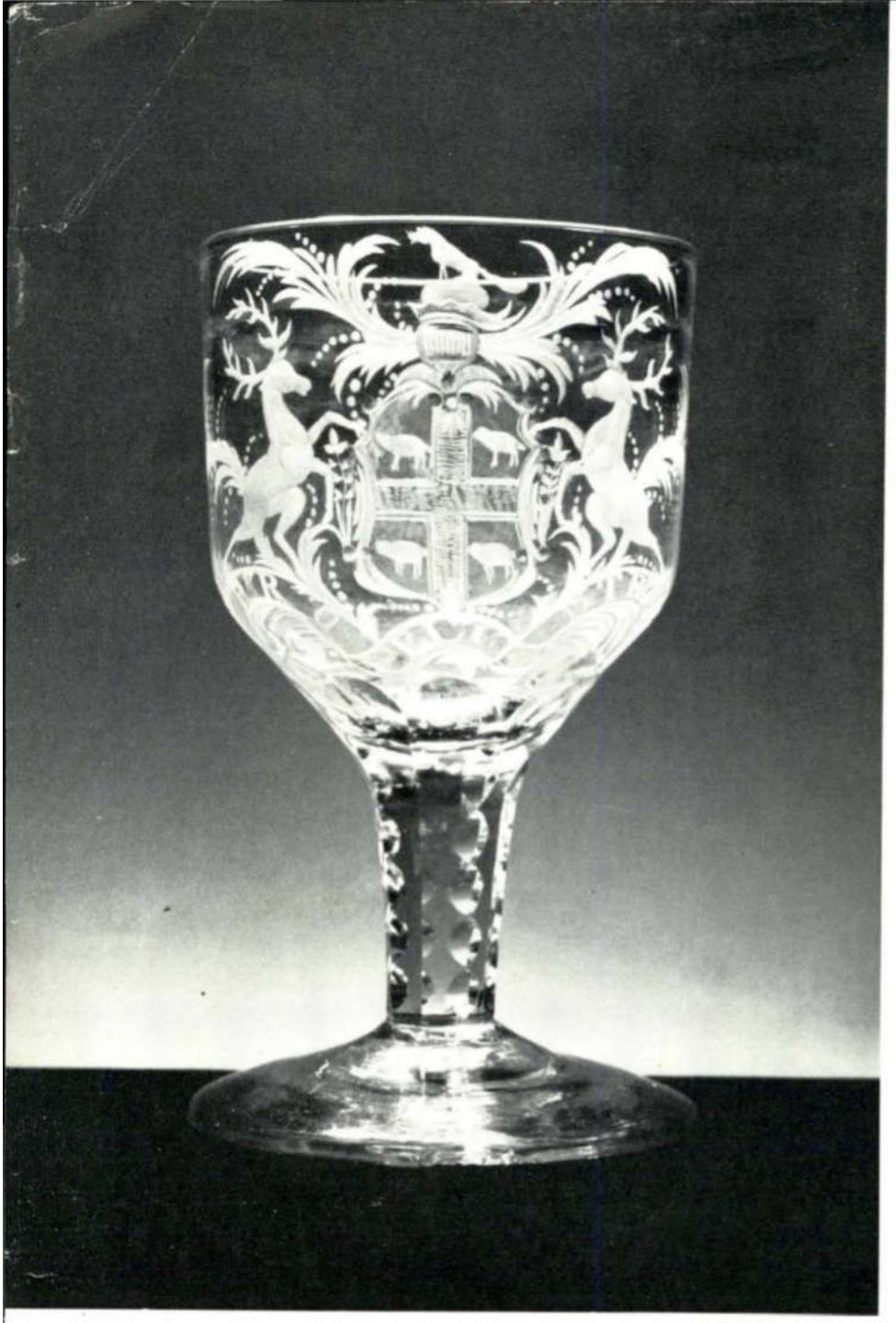
Yet there is, regrettably, a sort of archness, to much of the book that detracts considerably from its appeal. This is no doubt partly due to the conditions under which the book was put together. It is evident also that the author is less than enchanted by what present day life in the Canadian West has become; and in his desire to recapture the flavour of life as it was in those early days he tends to overstress the comic aspect, which can become monotonous. One should probably read only an episode at a time: enjoy that, and put the book away for another day.

LUKEY PAUL FROM LABRADOR

By Adelaide Leitch. Macmillan of Canada, Toronto, 1964. 116 pages, illus. $1.50.

As an adult it was a little disturbing to be so completely absorbed by Lukey Paul, which the publishers tell us is for children of 8 to 10 years. Could it be that our usual reading was on the wrong level, or it could be a matter of simple enchantment at a well told, heart-warming story of a small boy of Labrador mixed up with friends, deceivers, boats, Eskimos, Dr Grenfell, rip tides, and honest feeling. Miss Leitch has a happy and evocative turn of phrase: consider the Eskimos in a tent "packed thick as barnacles".

Try this story on your very young friends, and read it to them, because we have a feeling that you will enjoy it nearly as much as they do. *MB.*



THE CORNING MUSEUM OF GLASS

ARMORIAL GOBLET

IN THE Corning Museum of Glass in Corning, New York, stands this handsome eighteenth century English armorial goblet. Not until it was seen last year by James A. Houston, of wide Arctic experience, was the significance of the engraving realized. Here, finely depicted, was the full coat of arms of the Hudson's Bay Company, with the motto Pro Pelle Cutem.

The goblet is seven inches tall and nearly four inches across the rim. The stem is cut in eight panels. The lavish decoration on the bowl of the free-blown lead glass goblet has been engraved with a copper wheel. Employing this ancient method, the craftsman delicately cuts the surface greying the glass to catch the light. The engraver has accurately followed the arms of the Company, with the addition of floral scrolls and drops to enhance the pattern of light. Somewhat similar long-legged beaver appear on the shield in a seventeenth century Company seal of the coat of arms. In this, too, the fox in the crest appears to have long whiskers (or something in its mouth) but the tail is raised in dog-like manner not in the more naturalistic position shown on the goblet.

The reverse of the goblet shows the monogram H B C formed by foliated letters.

The origin of the goblet is not known but it seems probable that it was commissioned by officers of the Hudson's Bay Company as a presentation piece. ◆

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